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THE BIRDS OF BRIER ISLAND, NOVA SCOTIA

SPECIAL ISSUE

Revised and Updated 2022

By Eric L. Mills and Lance Laviolette

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THE BIRDS OF BRIER ISLAND, NOVA SCOTIA

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ABSTRACT

This monograph is a revision and updating of our publication on the birds of Brier Island, Nova Scotia, published in the Proceedings of the Nova Scotian Institute of Science in 2011. Known for its concentrations of seabirds and large volume of migration in spring and autumn, the island has gained constantly increasing attention by birders since it was first investigated by members of the Nova Scotia Bird Society in 1955. The past decade, since 2011, has seen a remarkable increase in bird reports, mainly due to increased field work by birders, but also because of the use of the online bird logging system eBird. The heart of this monograph is the annotated list of birds, which has been enlarged and revised in the light of new reports by field observers and new information from the ornithological literature. We have incorporated

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eBird observations, along with our personal records of occurrences and bird banding data into this revision, along with the changes in the order and arrangement of North American bird families as set out by the Checklist Committee of the American Ornithological Society. Three species, Pacific Golden-Plover, Brown Booby and Zone-tailed Hawk, have been added to the island checklist, and one has been lost, Thayer's Gull, which has been incorporated into Iceland Gull. The total list of species reported from the island is 357, including two hypothetical species. The number of known breeding bird species has increased from 74 to 83. We also update ecological knowledge of the island as a result of recent fieldwork and the restoration of the Big Meadow Bog in support of Eastern Mountain Avens conservation.

INTRODUCTION

Brier Island, Digby County, Nova Scotia, at the mouth of the Bay of Fundy (Fig 1), is one of the migration hot-spots of northeastern North America, sharing the distinction with Sable Island and Seal Island of being top-ranking birding destinations in eastern North America. As Ian McLaren (1981a, b) has shown, the three islands have been visited by an unusual, indeed unique, array of vagrant birds from all quarters of North America. Although Seal Island (in Yarmouth County, about 20 km west of Clark's Harbour, Shelburne County) and Sable Island (about 300 km ESE of Halifax, on the edge of the Scotian Shelf) have the longest lists of rarities and the highest proportions of vagrant species, Brier Island gets larger numbers of migrants. It is the only Nova Scotian offshore island that can be visited routinely, making it a target destination for increasing numbers of birders. As Maybank (2005, pp. 282-283) said, "Brier Island is justifiably considered one of Nova Scotia's premier year-round birding destinations." It was designated an Important Bird Area under Bird Life International's world-wide programme in 2000 (Birds Canada undated).

The regular migration spectacles of waders, hawks and passerines on Brier Island, especially in fall, are not just impressive, they let us view in a particularly transparent way how birds arrive, stage for further migration, and then leave this ship-like jumping off point. The physical setting of the island gives it a good deal of its ornithological character, and the presence of a busy fishing community, Westport, dating back some 250 years (Wilson 1900, Greenwood 1934, Shea 1990, Davis 1991, R.H. Davis ca.1997)

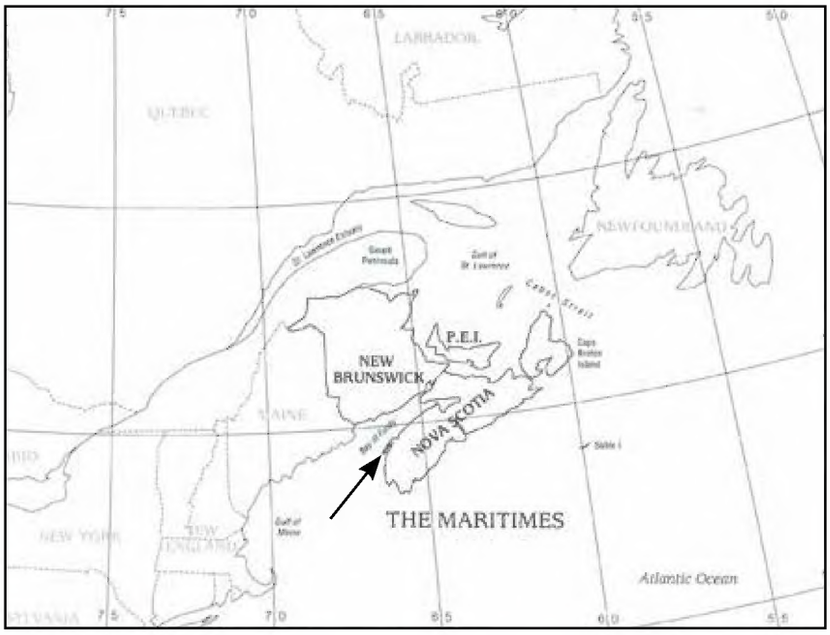

Fig 1 **Brier Island (at tip of arrowhead), showing its location in relation to the eastern Canadian provinces and the adjacent United States east coast.**

Fig 2 **Westport, Brier Island, seen from the south, along the west side of Grand Passage, which separates the Island from Long Island. Note the ridge behind the village, providing a mixture of spruce forest and alder scrub along a migration axis for passerine birds and raptors. In 2020, the permanent population of the island (nearly all in Westport) was 197 (less than a third of the population around 1900), plus about 50 seasonal residents (Teed and Teed 2020). Photo: Eric Mills.**

(Fig 2), is both an advantage to the visiting birder and a challenge to the future of the terrestrial and marine habitats of the island (Marine Research Associates 1977, Davis 1991, Rousseau 1991). In this monograph, we describe the ornithology of the island, first placing

its natural history in physical, biological and historical settings and then giving details of the species known from the island. It is a major revision and updating of Mills & Laviolette (2011).

THE PHYSICAL AND BIOLOGICAL SETTING

Brier Island (Fig 3), extending about 7 km along its major axis, with an area of about 1500 hectares and a shoreline of about 20 km (Garbary *et al.* 2019, pp. 63-67), is an emergent block, part of a massive, eroded layer of late Triassic – early Jurassic basalt that extends as the North Mountain of Nova Scotia from

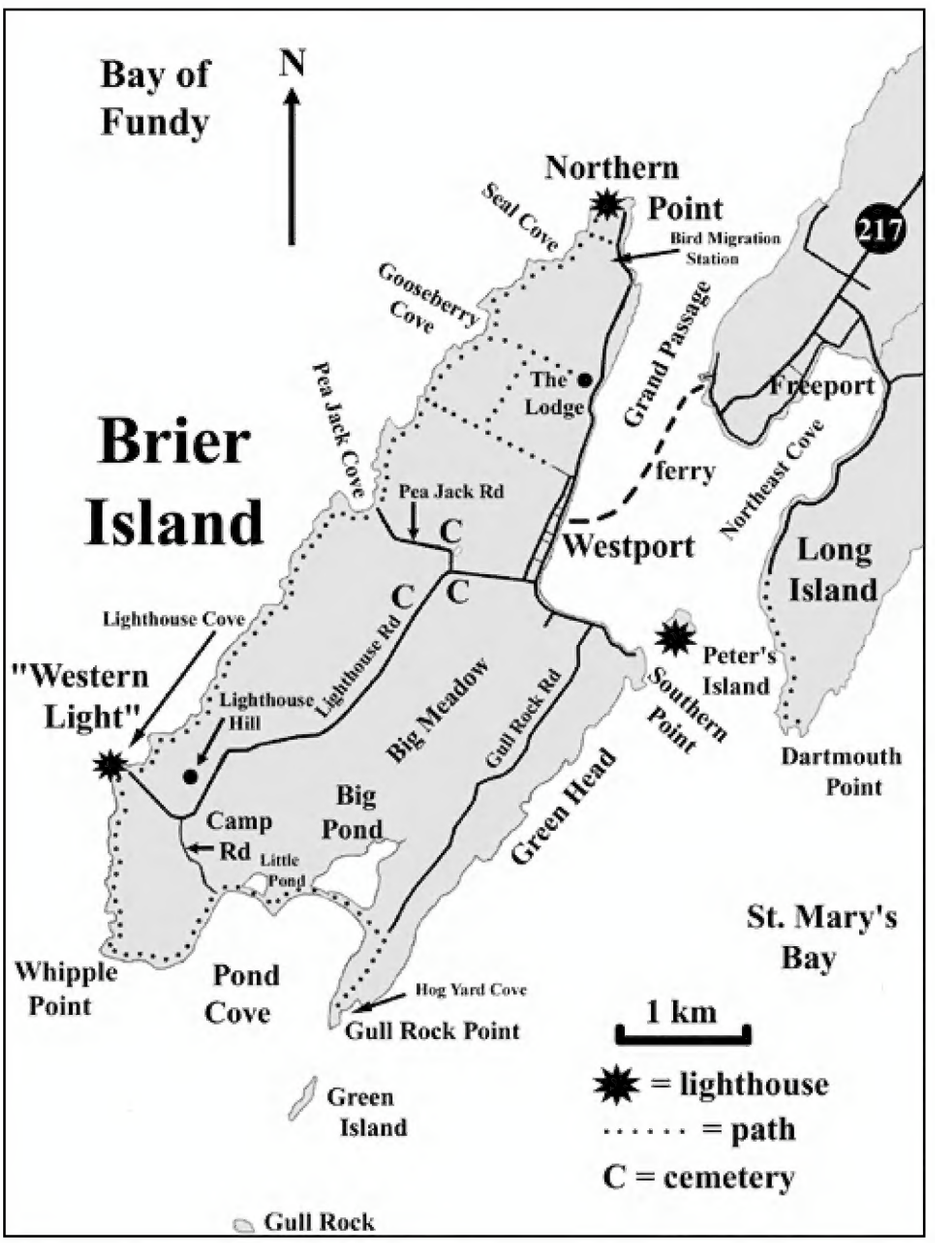

Fig 3 **Brier Island, Nova Scotia, showing many of the locations mentioned in the text (the figure was provided by Blake Maybank, modified from *Birding Sites of Nova Scotia*, 2005).**

Cape Blomidon in the east for some 200 km toward the southwest (Roland 1982, p. 194; Atlantic Geoscience Society 2001, pp. 126-129). This topographic feature decreases in elevation until it disappears beneath the sea at the mouth of the Bay of Fundy. The columnar basalt rock that forms spectacular shoreline scenery at Brier Island (Fig 4) reappears to the northwest on the island of Grand Manan, New Brunswick. North-south fault lines cross the extension of the North Mountain southwest of Digby, forming deep channels, Petit Passage and Grand Passage, isolating Long Island and Brier Island from mainland connections except by ferry.

The geological framework of Brier Island is most obvious along the shoreline, where there are steep cliffs, particularly on Northern Point, southwest of the Slocum Memorial (Green Head), and at Lighthouse and Pea Jack Coves. Spectacular surf-swept rocks extend offshore from Gull Rock Point and near Lighthouse Point. Inland, a Pleistocene overburden of sand and gravel, mixed with a variety of sandy loams, covers most of the island except on an outcrop near Lighthouse Cove. Depressions in the Pleistocene and Recent sediments have become extensive sphagnum bogs (locally called "meadows"), the main ones oriented along the southwest – northeast axis of the island.

High ridges extend from the village of Westport south toward Hog Yard Cove and north to Northern Point. A branch of the high axis

Fig 4 Green Head, showing the basic geological structure of Brier Island. Photo: Eric Mills.

of Northern Point extends southwest with breaks to Whipple Point (the westernmost point of Nova Scotia), isolating in the centre of the island a large bog (the Big Meadow) and several smaller bogs surrounded by heavy tangled spruce forest and alder scrub (Fig 5). Much of the island is relatively accessible via roads running from Southern Point to Northern Point and from Westport to Pea Jack Cove and the Western Light, and off the roads along an extensive and ramifying network of ATV trails.

About one-third of the island, about 485 hectares, mostly south of Lighthouse Road, taking in the Western Light, Whipple Point, the Pond Cove area and part of Gull Rock Point, has been owned since 1988 by the Nature Conservancy of Canada. This includes a large part, although not all, of the areas of greatest interest to birders, the most important exception being Northern Point, part of which is owned by Acadia University, part by the Federal Government (around the light station), and part privately.

A mild, damp oceanic climate and the presence of upland, bog, forest, and seashore habitats in a very small area result in a rich flora on the island (Swift 2002). There are a number of peculiarities, for example the presence of the Eastern Mountain Avens,

Fig 5 **Looking southeast across spruce forest, bog and coastal ponds of the Pond Cove area at the south end of the island. This area, owned by the Nature Conservancy of Canada, has the richest ornithological and general biological features of the island. Photo: Eric Mills.**

Geum peckii, an alpine species occurring closest in the mountains of New Hampshire. In addition, the dwarf subarctic birch, *Betula michauxii* occurs on the island at sea level but elsewhere only at a few localities much farther east in the province. The curly-grass fern, *Schizaea pusilla*, occurs in the bogs of the southwestern part of the island but is rare or absent in most other parts of the province (Zinck 1998, pp. 38, 176, 462). Shorelines, notably in Pond Cove, but markedly elsewhere, are heavily overgrown in many places by the introduced Rugose Rose, *Rosa rugosa* (Garbary *et al.* 2013). This is considered a pest by many, but its fruits are used by some of the residents and the thickets provide excellent cover for birds.

For a time, the terrestrial flora suffered from grazing by sheep, but after their removal in the 1970s the plants quickly recovered; they now are threatened in some places by unrestricted ATV use. The bogs were never much affected by grazing and the seasonal succession of orchids in them remains one of the glories of the island. The largest bog, known as the Big Meadow, was partially drained for agriculture beginning in 1958, and although agriculture never took off there, the drying bog provided an increasing attractive habitat for nesting Herring Gulls and threatened the existence of *Geum peckii*. Between 2015 and 2018, restoration of the bog by blocking drainage ditches and building small ponds took place (East Coast Aquatics 2018; for background on the Big Meadow see Spooner *et al.* 2017, pp 334-336, 344; Kickbush *et al.* 2018, pp. 265-266; and Hill *et al.* 2018). The transition back to a much wetter habitat continues and is being monitored. As of 2021, it appears that the large gull colony in the Big Meadow is decreasing (see our discus-sion under Herring Gull in the annotated list) and that a fundamental change in the hydrological regime is taking place, observable from a new, community-built boardwalk part way into the bog.

A number of features combine to make the climate and marine fauna of Brier Island and the Digby Neck area in general an unusual one. Highly saline marine water flows into the Bay of Fundy along the Nova Scotian shore, bringing an abundance of zooplankton with it. Tidal mixing and strong currents result in the water being virtually isothermal from top to bottom at the entrance of the Bay close to Brier Island (Gran & Braarud 1935, Hachey & Bailey 1952, Greenberg 1984, Brown & Gaskin 1986). The large mass of cool

water acts as a buffer to climatic change, and results in frequent fog banks, especially in summer (Canavan & Sanford 2007). Sea temperatures near Brier Island have a range of only a few degrees annually and frequently do not exceed 9°C even at the height of summer (elsewhere in the outer bay surface temperatures seldom exceed 12°C; see Bailey 1954 and Petrie *et al.* 1996). The area has the highest mean air temperature in January (about -2°C) anywhere in the Maritime Provinces, the smallest mean annual temperature range (about 16°C), smallest mean daily temperature range (≤ 8°C) except for parts of Prince Edward Island, the mildest extreme low temperature (about -14°C), and the longest frost-free period (more than 160 days). However, climate change is evident in more and more frequent summer droughts, and in increasing sea temperatures. This mirrors the whole Bay of Fundy-Gulf of Maine marine system, which since 2010 has shown increases of sea surface temperature in some regions of up to 4°C above average (just below 2°C in the Bay of Fundy), particularly in late summer and autumn (Koopman *et al.* 2014, Hebert *et al.* 2018, Pershing 2020). These temperature changes have implications for seabird breeding success based on changes in the quality of their food (for a discussion of changes in overall oceanographic features, see Casault *et al.* 2020 and for the effects of changes in food quality on Atlantic Puffins, Razorbills and Common Murres in the Gulf of Maine region, see Scopel *et al.* 2019 and Diamond 2021).

The result of such a moderate climate is that marine organisms seldom experience extreme high or low temperatures. Organisms found subtidally elsewhere are often intertidal on Digby Neck and the islands, and a number of warm water organisms have been recorded only in this part of the Maritime Provinces. Pond Cove on Brier Island (Figs 5, 9) is one of only a few known localities in Eastern Canada for the intertidal insect *Petrobius* (probably *P. brevistylus*) (Bousfield 1962), and at least three species of algae, previously unrecorded elsewhere in the Bay of Fundy region, were found there in an early survey (Edelstein *et al.* 1970). In 2017, David Garbary and co-workers found three algal species previously unknown in Canada during a comprehensive study of the marine algae and commented that "with 150 species and varieties of seaweeds, Brier Island has the highest species richness of a limited area of eastern Canada" (Garbary *et al.* 2019).

The biological production cycle on the Scotian Shelf nearby is understood to be governed by a complex interplay of water column stability, vertical mixing allowing replenishment of nutrients, and coastal upwelling (Greenan *et al.* 2008). No study of the cycle in the Bay of Fundy has been done since Gran and Braarud, however, an important feature of the island's surroundings is the intense vertical turbulence resulting from the large tidal range (5-6 metres at Lighthouse Cove) and the presence of shallow rocky reefs ("ledges") just to the northwest and southwest of the island. This "tidal pumping" (as it has been called) results in the presence of large and medium-sized zooplankton such as euphausiids and copepods near the surface, along with fish and squid, attracting seabirds (notably shearwaters, storm-petrels, and phalaropes) and whales to the long biologically-rich convergence and divergence lines created by strong currents along the ledges (Brown 1988, Brown *et al.* 1979, Brown & Gaskin 1986). However, as Nicol (1984) showed, the euphausiid *Meganyctiphanes norvegica*, an important food item of gulls, shearwaters, phalaropes, herring, squid, and some whales, actually occurs at the surface in summer breeding aggregations away from the most turbulent areas and at times when tidal currents and turbulence are at a daily minimum. Whatever the mechanism, the result is the same; these zooplankton and other invertebrate animals such as squid, along with herring, are frequently abundant at the surface and contribute to an exceptionally rich food chain adjacent to the island. As sea temperatures rise, this ecosystem is bound to change – and may indeed already have begun to change – making regular quantitative observations of the plankton and seabirds important.

BIRD MIGRATION AND ITS STUDY

Brier Island has been known for many years as a major stopover point in the spring and fall migrations of land birds, waders, hawks and some waterfowl. Along with Seal Island, some 100 km to the SSE, it forms the apex of a giant Helgoland trap (a funnel-shaped bird trap), the body of which is the mainland of southwestern Nova Scotia, and in fact much of the North American continent because of continental wind patterns combined with the migrational peculiarities of southern and western strays (McLaren 1981b).

Radar observations (Richardson 1971, 1972, 1982), and more recently the Motus Tracking System (Mackenzie & Taylor 2014), have shown clearly the volume and pattern of migration in this part of eastern Canada, including the northeastward reverse movement of some fall migrants, providing the material for a pattern of bird vagrancy extending from northeastern North America as far as Ireland and the United Kingdom (McLaren *et al.* 2006). Exceptional meteorological events such as hurricanes, post-tropical storms, and simply the unusual movement of warm and cold fronts occasionally provide Nova Scotia with remarkable falls of birds, some of them vagrants, extending to the islands (McLaren *et al.* 2000, McLaren & McLaren 2009, McLaren & Mills 2007, Mills 1969), but it is the regular ebb and flow of birds that is especially evident on Brier Island. Vagrancy provides the frosting on a particularly rich cake.

Beginning in 1956, Wickerson Lent (Fig 6), a resident of Brier Island, joined a banding operation on Acadia University lands at Northern Point organized by Willett Mills (d. 1984), an influential amateur ornithologist from Halifax, Harrison F. Lewis (1893-1974; see Anonymous 1974, Cameron 1974), who had retired as chief of the Canadian Wildlife Service, and others (Lewis 1957, 1960; Baird *et al.* 1958).

Their work provided the first quantitative information on bird migration on Brier Island and contributed to a broader study along the North American East Coast. Lewis pointed out in 1964 how little was known then about the routes that birds took into, out of, and across the province, and that migration studies were needed to determine this information. After a hiatus in the late 1960s, banding resumed in 1971, when, at the suggestion of Peter Austin-Smith of the Biology Department at Acadia University, John Kearney undertook a pilot study of fall migration on the site that Willett Mills and Lewis had used. Five years later, under the direction of Ross Anderson of Dartmouth, NS, with the assistance of P.C. Smith of Acadia University, a long-term project was established to study bird migration. Banding has continued annually since 1982 under the direction of Lance Laviolette.

The Brier Island Bird Migration Research Station (Fig 7) is located seasonally (usually in late summer or fall) on the same property at Northern Point owned by Acadia University on which the first

Fig 6 **Wickerson Lent (1919-2005) in 2001 with a painting of Western Light and Madeline Lent (1925-1978) in 1977 with a grandchild. Both made important contributions to the knowledge of birds on Brier Island beginning in the late 1950s, he by observing and collecting and she by keeping meticulous notes that were a mainstay of quarterly reports to the Nova Scotia Bird Society. Photos: Wickerson Lent by Chris Mills, Madeline Lent thanks to Faye Lent.**

banding by Harrison Lewis and Willett Mills took place. Since its inception, more than 35,000 birds of 119 species have been banded. The majority of these birds originates from every Atlantic province (although mainly from the three Maritime Provinces), the Gaspé Peninsula, other parts of southern Québec, and Maine. Banding returns show that their southward migration may take them to the eastern seaboard of the United States, to islands in the Caribbean, and even as far as the Amazon basin of Brazil.

Monitoring carried out at the station provides a means of evaluating the long-term population trends of a number of passerine species using Brier Island as a stopover site. Since annual, quantifiable efforts began in 1976, banding data indicate that populations of a number of migrants have diminished. The total number of birds banded decreased from an average of 112 birds per 100 net hours

Fig 7 The Brier Island Bird Migration Research Station in action, 1 September 2009. From left to right, Linden Thurber, Meghan Laviolette and Lance Laviolette. Photo: Eric Mills.

(nh) in the late 1970s and early 1980s to an average of 63 birds per 100 nh by the late 2010s. This is a decrease of about 44%.

Floods of migrant birds occur on Brier Island in late May and especially from the last week of August through early October (when most of the banding has been done), but the island is totally migrant-free for only about two weeks in late June and in January and February (Fig 8). During the heavy migrations, especially in fall, it is possible to find thousands of birds, including warblers, finches, chickadees, Blue Jays and Northern Flickers all over the island. But the main areas of concentration are the tip of Northern Point (Fig 9), the high ridge south from the point, the village of Westport, the length of Lighthouse Road (including the cemeteries), and sometimes Gull Rock Road.

Isolated meadows and the edge of alder scrub near Pond Cove and along the margins of the Big Meadow may also hold major flocks of migrant land birds. The arriving birds, especially just after dawn, are restless; many leave (usually to the northeast), and others begin to move along the high points of the island from Northern Point toward the southwest. Frequently a good strategy is to begin birding just before dawn at Northern Point or Western Light as the birds make landfall, then to follow them down or across the island in the following hours.

A diverse group of migrants is attracted to the Pond Cove area (Fig 10; also Fig 5), especially from mid-summer into winter.

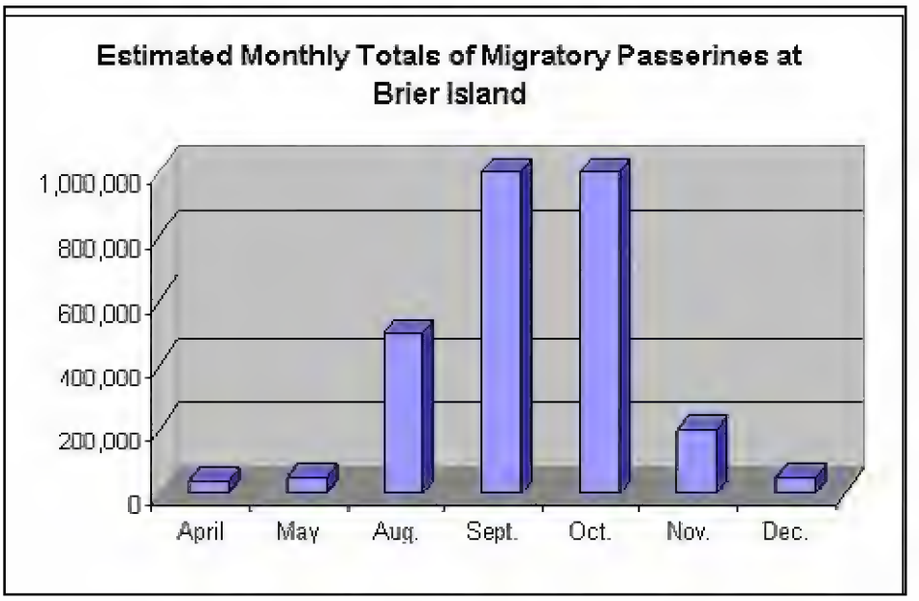

Fig 8 **The estimated monthly totals of migratory passerines at Brier Island, Nova Scotia, based on banding totals on the island scaled up using radar estimates of numbers migrating from Long Point, Ontario.**

Fig 9 **The light station and surroundings at Northern Point. Many migrants, especially in fall, make landfall here just after dawn and then take shelter in the alder and bayberry scrub shown, before moving into thicker cover nearby and then farther south on the island. Photo: Eric Mills.**

Along with Northern Point, this is one of the most productive birding hotspots of the island. From mid-July to mid-October numbers of waders (shorebirds), especially Semipalmated and Least Sandpipers, Semipalmated Plovers, Greater and Lesser Yellowlegs, Black-bellied Plovers, White-rumped Sandpipers, Sanderlings and Dunlin (roughly in order of abundance) accumulate on the flats in the big pond or on the beach, depending on tide. Rarer species such as Hudsonian Godwits, Buff-breasted Sandpipers, Stilt Sandpipers and Baird's Sandpipers occur regularly in Pond Cove. The big pond at Pond

Cove attracts rarities such as southern herons in spring and fall and (occasionally) Glossy Ibis in spring. It is a magnet for numbers of hawks, notably Merlins and Peregrines, especially during the fall wader migration. For about the past five years, the big pond has freshened and enlarged because its inlet from the Cove closed due to storm and tide-induced changes to the beach. The former shorebird flats have been submerged, and the shoreline vegetation of the pond is changing, making foraging by shorebirds and herons more difficult but improving the nesting habitat for ducks. Unless the inlet is opened by storms, it seems likely that the best days of the big pond for shorebirds and herons may be over due to a natural change.

Pond Cove supports numbers of breeding waterfowl, especially Black Duck, Common Eider, and probably a few Green-winged Teal, also the occasional pair of American Wigeon, Gadwall and Canada Geese. Migrant waterfowl may be abundant beginning in August. Common Eiders gather in post- and pre-breeding flocks on the waters of the Cove itself, and in summer there is usually a flock of non-breeders, varying in numbers from year to year. Brant are regular in the Cove in spring and fall, feeding on eelgrass in the intertidal zone in early spring until the terrestrial grass begins to grow, whereupon they begin to feed on land, mainly between Whipple Point and the Western Light.

From late August until the middle of October, under the right conditions (usually light northeast winds and clear skies) the island

Fig 10 Pond Cove from the east, showing the dune complex, barrier beach, and a portion of the big pond (just visible on the right). The small pond is just out of sight behind the beach ridge in the center. Photo: Eric Mills.

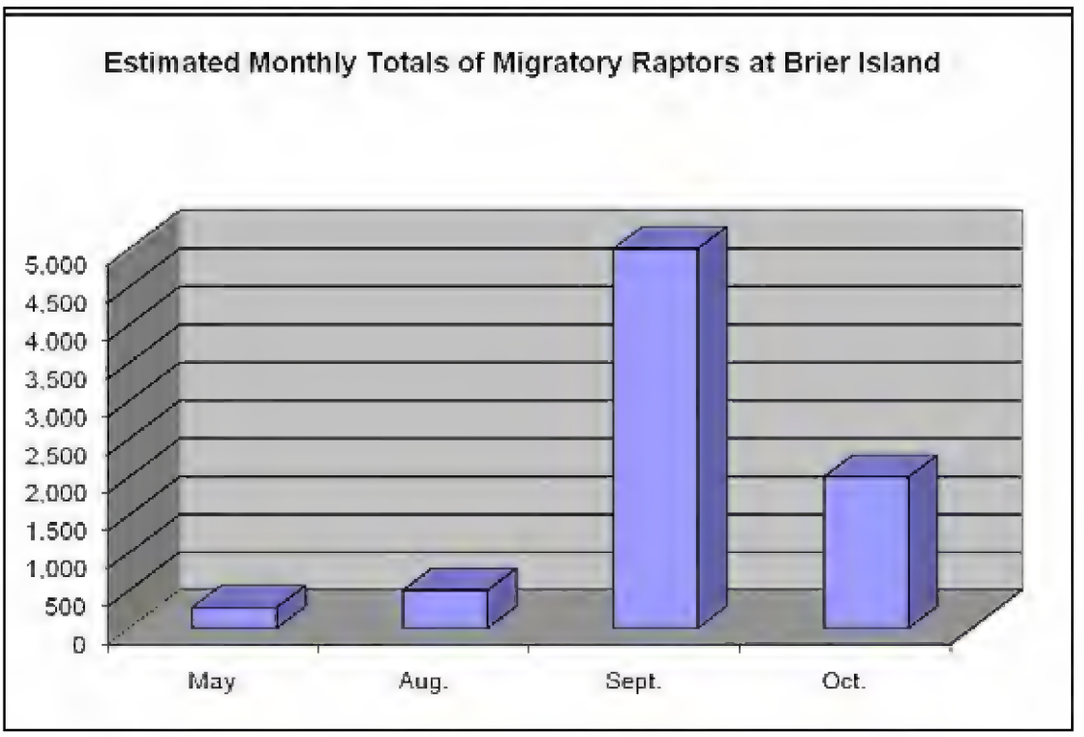

Fig 11 The estimated monthly totals of migratory raptors at Brier Island, Nova Scotia based on historical observations and banding totals.

has exceptional raptor flights (Fig 11). Broad-winged Hawks usually outnumber the other species (except for Sharp-shinned Hawks), drifting in kettles of dozens to hundreds of birds from the northeast toward the south-western tip of the island, where most turn back, to cross the Bay of Fundy toward Grand Manan at some other place. Other species, notably Turkey Vultures, Northern Harriers, Sharp-shinned Hawks, Merlins, and American Kestrels are less hesitant and frequently purposefully set off across the Gulf of Maine toward the U.S. mainland.

Examples will show what the island can present, especially in fall (based on Mills's field notes).

> *Occasionally the meteorological setup is just right for the massive migration of passerines that occurs in October to become evident. This was the case in mid October 2008. We* [Eric and Anne Mills] *were on Brier Island during the most dramatic fallouts of birds that I have seen in Nova Scotia. We also learned a new trick: creeping along in a car well before dawn, picking out birds from the roads and road verges in the headlights before they disappeared into the bushes at daybreak to avoid the hawks that are ubiquitous on the island in fall.*

Saturday, October 11. On the road before dawn, in darkness. Lighthouse Road from Camp Road to the Picnic Ground was alive with birds hopping out from and into the shrubbery – mainly thrushes and White-throated Sparrows. In the headlights we identified one Veery, one Hermit Thrush, 10+ Swainson's Thrushes, 20+ White-throats, one immature White-crowned Sparrow, 3+ Lincoln's Sparrows, a few Song and Savannah (!) Sparrows, and about 10 Juncos. As the light increased, the birds just disappeared like magic into the alders and were not seen again. During the day, we had lots of Sharp-shinned Hawks, Merlins and Kestrels, at least five Peregrines, a Long-eared Owl (maybe two – heard in the evening), an Eastern Phoebe, an adult Orange-crowned Warbler and two overflying Rusty Blackbirds.

Sunday, October 12. An extraordinary day – the biggest fallout of birds I have ever seen here. In the darkness, ca. 0645-0715 (when it began to get light), Lighthouse Road was alive with hundreds of White-throats, mixed with Hermit Thrushes, a few Swamp Sparrows, several Lincoln's Sparrows, and numerous White-crowned Sparrows. At dawn, when the roadside birds melted away, the sky all over the island was full of birds, and this continued at Northern Point for close to three hours. Tens of thousands of Pine Siskins swept by, mixed with Goldfinches, along with hundreds of Robins and Cedar Waxwings. Many thousands of Myrtle Warblers mixed with Palms were in the air and in the spruces. Ruby-crowned and Golden-crowned Kinglets were everywhere. Small groups of Chipping Sparrows passed by along with dozens of Red-breasted Nuthatches. A female Cardinal, calling loudly and newly arrived, popped out of the alders. The sky remained full of birds and their sounds, especially the calls of Pine Siskins, for hours. Most birds were moving from south to north or northeast, apparently after overshooting the land, except for the siskins, which were coming in from the northeast. Later, White-throats were everywhere all day, and a modest hawk flight developed, involving about 100 Turkey Vultures, four Red-tailed Hawks, 170 Broad-winged Hawks, about five Peregrines, and a lot of Sharp-shins, Kestrels and Merlins. Other birds that day included Great Horned, Long-eared and Saw-Whet Owls (heard in the dusk), a male Red-bellied

Woodpecker, an Eastern Phoebe, an adult Orange-crowned Warbler, another Cardinal, and some Lapland Longspurs.

Monday, October 13. A somewhat quieter day, although with the same flavour, with birds at some locations before dawn. We were out early in pre-dawn darkness and rain but found very few birds until we got north of the Lodge on Northern Point Road, where there was a good flock of White-throats and Juncos, a few Song Sparrows and two Hermit Thrushes that we watched in the headlights. After that there were rather few birds, despite a small hawk flight later and several hundred Pine Siskins in many flocks all over the island.

Tuesday, October 14. Another good arrival of birds, but nothing like Sunday. Once again, the main group of birds along the roads before dawn were north of the Lodge – mainly White-throats, Song Sparrows and Swamp Sparrows. After dawn, there was lots of action at Northern Point, mainly Myrtle Warblers, and at least 50 Ruby-crowned Kinglets. A Downy Woodpecker flew in from the north, and there was a Yellow-breasted Chat in a raspberry tangle.

Throughout this period, the winds were mainly from the northwest or north-northwest and the skies were clear. There was really nothing obvious to stop the birds on the island – but stop they did, presumably finding themselves nearby at dawn. Postings on the website NatureNS showed that sparrows arrived on the mainland in great numbers on Sunday the 12th, our biggest day on Brier Island.

We returned to the island on October 18th.

Sunday, October 19. This morning well before dawn the Lighthouse Road and Northern Point Road were alive with birds that I identified in the car headlights – at least 20 Hermit Thrushes, hundreds of White-throats, Song Sparrows and Juncos, along with a few Fox Sparrows, Chipping Sparrows and Savannah Sparrows. As the light increased, they disappeared into the alders, but the Northern Point area remained alive with the calls of sparrows and juncos. Significant numbers of Ruby-crowned and Golden-crowned Kinglets appeared, along

with flock after flock of Robins moving northward off the island (I estimated 500 in all). I watched two Mourning Doves (which had been scarce on the island for some time) drop in from the north. An arriving female Hairy Woodpecker tried vainly to get some nutrition from a power pole. As the morning progressed, flocks of Common Grackles came in from the south, some settling on the island, but perhaps 250 moving on northward to somewhere else. Myrtle Warblers (I estimated more than 200, a small fraction of the total) were moving through the spruces and alders and calling everywhere. Flocks of siskins swept in all over the island, moved on, and were replaced by others. On the mainland, apparently, observers found very few birds.

It's all a matter of chance, of course, seeing numbers of birds like this. We know from radar and surveys of calling migrants just how many birds pass over during the peak of fall migration. But actually getting a glimpse of the numbers and especially seeing how the birds behave before dawn, just after arrival, was new in my experience and unlike anywhere else in Nova Scotia.

Spring seldom presents such migration spectaculars, but sometimes the conditions are favorable, as they were on May 22, 2018.

Today...produced the largest grounding of spring-migrating warblers that I (Mills) *have seen for many years on Brier Island. The wind was SW and the sky mainly clear all night. Then just at dawn the wind came up from the E with some low cloud and haze. This seems to have brought down migrants to the migrant-trap of the Northern Point thickets. By the time I arrived there about 0600 every bush and tree had a bird in it, some gleaning, others leaping vertically into the air after insects. Numbers were nearly impossible to estimate because of the activity, and because there was a constant departure of birds from the feeding groups toward Long Island (to the NE), but there were at least a thousand birds on the move when I arrived and hundreds had flown off to the NE by the time I left at 0800. At first the foraging group was dominated by Redstarts, including many males showing delayed molt, and*

later by Magnolias and Northern Parulas...We were surprised to miss Cape May and Canada Warblers, also empid flycatchers, and to see only one vireo. This was a warbler event almost completely, made up mainly of species that I normally think of as early-season migrants.

HISTORY OF BIRD STUDY ON BRIER ISLAND

Despite experiences like those described at the end of the previous section, which are not unique (see Lavender 1999, Mills 2000), the history of bird observations on Brier Island is surprisingly short. This is true compared to, for example, Sable Island, which is much more difficult of access (for the history of bird observations there, see McLaren 1981a, pp. 3-12), and Grand Manan, which got the attention of ornithological visitors quite early, probably beginning with Audubon in 1833 (Pettingill 1939, Squires 1976, pp. 3-4). We have been unable to find references to birds on or from Brier Island in the publications of early Nova Scotian naturalists such as Andrew Downs (1811-1892), J.B. Gilpin (1810-1892) or Harry Piers (1870-1940). Montague Chamberlain, in his *Catalogue of Canadian Birds* (1887), refers frequently to the outer Bay of Fundy and Bay of Fundy islands, but the only explicit reference to Brier Island is under his listing of Wilson's Plover (see below), and it is clear that this New Brunswick ornithologist was concerned mainly with Grand Manan and the adjacent coastline of New Brunswick and Maine. It seems likely that the remoteness of the island and the difficulty of getting there except by sea discouraged most ornithologists from going to Brier Island, a point made in 1895 by the New Brunswick biologist Loring Bailey, who did venture down Digby Neck. Merritt Fernald, the Harvard botanist, also visited the area, landing at Sandy Cove on Digby Neck, but in two expeditions, in 1920 and 1921, he never went beyond Freeport, at the south-west end of Long Island (Fernald 1921, 1922), thereby missing some of the unusual plants of the area.

The history of ornithology on Brier Island appears to have started with the visit of the Kansas ornithologist Nathaniel Goss (1826-1891; see Anonymous 1903) from about the middle of March to the end of April 1880, during a much longer visit to the Digby area that began in mid February and ended in mid June that year. Judging by the composition of his collection, which is now in the University of

Kansas Natural History Museum, he had an understandable interest in seabirds, but he had the good luck to collect the only Wilson's Plover recorded from the island and the first from Nova Scotia, on 28 April 1880, and all his 35 specimens (he probably traded or sold many others) now in the University of Kansas collection were first records for the island. Two specimens of Great Black-backed Gulls taken in November 1891 collected in "Westport" and attributed to the New England collector W.S. Bryant (probably at that time a student or physician in Boston, a member of the Boston Society of Natural History, and, after 1905 a staff physician of Presbyterian Hospital in New York) are in the Museum of Comparative Zoology, Harvard University, as is a specimen of a Red-tailed Hawk attributed to the widely-travelled Massachusetts collector/taxidermist M. Abbott Frazar (1859-1925 – see Frazar 1926) from December 1895. They seem to signify an interest in the island by both, but there is no certain evidence that either collector actually visited the island, unlike Goss, who certainly did.

The British Columbia ornithologist and artist Allan Brooks (1869-1946) visited Nova Scotia during the summer of 1930 (Brooks 1933, Laing 1979, pp. 172-173) but probably did not visit the island; several specimens of Parasitic Jaegers taken by him somewhere at sea off Brier Island were apparently the fruits of a trip across the outer Bay of Fundy from Grand Manan.

The Nova Scotia Bird Society's first foray to the island was in 1955, the year of the Society's formation (Lewis 1956; on the Society, Cohrs 1993 and d'Entremont 2005), but the real start of systematic observations began with the appointment of Wickerson Lent (Fig 6), originally a fisherman on the island, as a lightkeeper about 1960. For the next quarter-century he collaborated in banding with Willett Mills and Harrison Lewis (for the first few years – see the previous section), kept records, many of them submitted for publication to the Nova Scotia Bird Society's newsletter by his wife Madeline (Fig 6), collected rarities (some shot, others as lighthouse kills), and encouraged the occasional visit, and later the stream, of off-island birders (Lent 1961). Although many of Lent's notes from the first decade have not been found, we have had access, thanks to his family, to his daily journal from 1970 to 1983, some field notes in a small ring notebook dating from 1969 through 1973, and his life-list in a copy of Peterson's *A Field Guide to Eastern Birds*,

second edition, 1947. His records form the basis of our knowledge of the ornithology of the island through the Nova Scotia Bird Society, through their incorporation into Tufts' *Birds of Nova Scotia* (first edition in 1961), and by word of mouth. Our listing is the first to incorporate information from all these sources.

Regular Christmas Bird Counts (referred to in the text as CBCs), summarized in *North American Birds* and its predecessors, began in 1971 (earlier informal counts beginning in 1958 involving the Lent family are summarized in *Nova Scotia Birds* and its predecessors). These give a picture of the status of many species in early winter. The cumulative species number from regular CBC counts, as of 2022, is about 150.

During the 1970s and 1980s, annual fall field trips by the Nova Scotia Bird Society ("President's Field Trips;" Fig 12) were held in early September. They have been superseded by regular trips of a less organized nature in September and October and by an increasing number of individual birders and small groups, mainly in May and September-October. The island is now quite heavily birded, although mainly by visitors, during the main migration seasons, but is visited rarely in winter.

Fig 12 A lunch-time gathering of birders from the Nova Scotia Bird Society in September 1971. Birders still active in the Society or elsewhere are shown, including Sylvia Fullerton, Wayne Neily, Davis Finch, Eric and Anne Mills. Photo: Eric Mills.

BREEDING BIRDS

The island, because of its small size and restricted range of habitats, is depauperate in breeding species compared to the mainland of Nova Scotia or even the adjacent areas of Long Island and Digby Neck. Nonetheless, a good deal of information is available on the breeding species as a result of the two breeding bird atlas surveys, 1986-1990 (see Erskine 1992) and 2006-2010 (Stewart *et al.* 2015). Summaries of both are available on the Maritimes Breeding Bird Atlas website http:/www.mba-aom.ca/. Note that in using data from the breeding bird atlases, part of one square including the eastern part of Brier Island also includes some of western Long Island where there are breeding species not known to nest on Brier Island. In addition, scattered information on breeding birds from earlier and later years is available, mainly from our database.

The list that follows includes 55 species known to breed regularly on the island and 28 (in parentheses) that are more irregular but are known to have nested in the past or are strongly suspected to nest. More detail is given in the annotated list following the next section.

Canada Goose *Branta canadensis*
(Mallard *Anas platyrhynchos*)
American Black Duck *Anas rubripes*
(Gadwall *Anas strepera*)
Green-winged Teal *Anas crecca*
American Wigeon
(Blue-winged Teal *Anas discors*)
Common Eider *Somateria mollissima*
Ring-necked Pheasant *Phasianus colchicus*
Ruffed Grouse *Bonassa umbellus*
Rock Pigeon *Columba livia*
Mourning Dove *Zenaida macroura*
(Ruby-throated Hummingbird *Archilochus colubris*)
(Killdeer *Charadrius vociferus*)
American Woodcock *Scolopax minor*
Spotted Sandpiper *Actitis macularius*
Black Guillemot *Cepphus grille*
Herring Gull *Larus argentatus*
Great Black-backed Gull *Larus marinus*
(Common Tern *Sterna hirundo*)
(Arctic Tern *Sterna paridisaea*)
(Roseate Tern *Sterna dougallii*)
Great Cormorant *Phalacrocorax carbo*
Double-crested Cormorant *Nannopterum auritum*
Bald Eagle (*Haliaeetus leucocephalus*)
(Northern Harrier *Circus cyaneus*)
(Northern Goshawk *Accipiter gentilis*)
(Long-eared Owl *Asio otus*)
Great Horned Owl *Bubo virginianus*
(Northern Saw-whet Owl *Aegolius acadicus*)
(Belted Kingfisher *Megaceryle alcyon*)
Downy Woodpecker *Picoides pubescens*
(Merlin *Falco columbarius*)
(Yellow-bellied Flycatcher *Empidonax flaviventris*)
Alder Flycatcher *Empidonax alnorum*)
(Eastern Phoebe *Sayornis phoebe*)
(Canada Jay *Perisoreus canadensis*)
Blue Jay *Cyanocitta cristata*
American Crow *Corvus brachyrhynchos*
Common Raven *Corvus corax*
Tree Swallow *Tachycineta bicolor*
Barn Swallow *Hirundo rustica*)
(Northern Rough-winged Swallow *Stelgidopteryx serripennis*)
(Bank Swallow *Riparia riparia*)
(Cliff Swallow *Petrochelidon pyrrhonota*)
Black-capped Chickadee *Poecile atricapillus*
Boreal Chickadee *Poecile hudsonicus*

(Red-breasted Nuthatch *Sitta canadensis*)
Winter Wren *Troglodytes hiemalis*
Golden-crowned Kinglet *Regulus satrapa*
(Eastern Bluebird *Sialia sialis*)
Swainson's Thrush *Catharus ustulatus*
Hermit Thrush *Catharus guttatus*
American Robin *Turdus migratorius*
Gray Catbird *Dumetella carolinensis*
European Starling *Sturnus vulgaris*
Cedar Waxwing *Bombycilla cedrorum*
(House Sparrow *Passer domesticus*)
Purple Finch *Haemorhous purpureus*
(Red Crossbill *Loxia curvirostra*)
American Goldfinch *Spinus tristis*
Black-and-white Warbler *Mniotilta varia*
Nashville Warbler *Oreothlypis ruficapilla*
Common Yellowthroat *Geothlypis trichas*
American Redstart *Setophaga ruticilla*
Northern Parula *Setophaga americana*
Yellow Warbler *Setophaga petechia*
Magnolia Warbler *Setophaga magnolia*
Yellow-rumped Warbler *Setophaga coronata*
Black-throated Green Warbler *Setophaga virens*
Blackpoll Warbler *Setophaga striata*
(Canada Warbler *Cardellina canadensis*)
(Chipping Sparrow *Spizella passerina*)
Savannah Sparrow *Passerculus sandwichensis*
Song Sparrow *Melospiza melodia*
Swamp Sparrow *Melospiza georgiana*
White-throated Sparrow *Zonotrichia albicollis*
Dark-eyed Junco *Junco hyemalis*
Northern Cardinal *Cardinalis cardinalis*
(Indigo Bunting *Passerina cyanea*)
(Bobolink *Dolichonyx oryzivorus*)
Red-winged Blackbird *Aegelaius phoeniceus*
Common Grackle *Quiscalus quiscula*
Brown-headed Cowbird *Molothrus ater*

COMPARISONS WITH GRAND MANAN

The closest large and regularly birded islands to Brier Island are those of the Grand Manan archipelago (including Machias Seal Island), New Brunswick. Grand Manan is often visible from Brier Island, lies in the same migratory pathway, and is known to share migrants with Brier Island, unlike other Nova Scotian islands. The main island, Grand Manan, lies about 50 km to the northwest and has an area of about 137 km^2 compared to Brier Island's 15 km^2. It is not only significantly larger, it has been birded for much longer, at least since the early nineteenth century, probably because of its proximity to the U.S. border (Pettingill 1939, pp. 297-302 for a brief history). Dalzell (2004) gives a list (supplemented by unpublished notes dated 2010) and Jim Wilson of Quispamsis, NB has given us a list of additions up to 2021. As a result, the Grand Manan bird list is somewhat longer than that for Brier Island (about 388 species versus 357) although its migrant and vagrant species are quite similar. Because of its larger size, and thus its larger catchment area and greater range of habitats, Grand Manan also has a larger list of breeding species (about 125 versus 83 for Brier Island).

Compared to Grand Manan, the Brier Island list lacks Fulvous Whistling-Duck, Graylag Goose, Canvasback, Labrador Duck (extinct), Western Grebe, Yellow Rail, Northern Lapwing, American

Oystercatcher, Black-necked Stilt, Eskimo Curlew (extinct), Marbled Godwit, Little Gull, California Gull, Ivory Gull, Gull-billed Tern, Bridled Tern, Sooty Tern, Ancient Murrelet, Great Auk (extinct), Red-billed Tropicbird, Yellow-nosed Albatross, White Pelican, Passenger Pigeon (extinct), Barn Owl, Burrowing Owl, Great Gray Owl, Chuck-will's-widow, Rufous Hummingbird, Ash-throated Flycatcher, Sulphur-bellied Flycatcher, Fork-tailed Flycatcher, Violet-green Swallow, Bewick's Wren, Stonechat, Varied Thrush, Sage Thrasher, Chestnut-collared Longspur, Virginia's Warbler, MacGillivray's Warbler, Hermit Warbler, Painted Bunting, Brewer's Sparrow, Henslow's Sparrow, LeConte's Sparrow, Harris's Sparrow, Golden-crowned Sparrow, Painted Bunting, Western Meadowlark, and Bronzed Cowbird. Except for the extinct species and the occasional unexpected one-time occurrence (for example Stonechat), this list is a useful one in predicting species that may occur yet on Brier Island.

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the species of the island were provided by Peter Comeau, Bernard Forsythe, Neil Green, Doug McRae, Ian McLaren, Judy O'Brien, Hans Toom, Richard Stern and June Farnsworth. We are grateful to all for permission to use their photographs. Ian McLaren provided the data cards on which the summaries in the third edition of *Birds of Nova Scotia* Tufts (1986) were based, information on specimens in museum collections, and a great deal of additional information and advice. All these were invaluable, along with his many other contributions to ornithology in Nova Scotia, as will be evident throughout the text.

ANNOTATED LIST OF THE BIRDS OF BRIER ISLAND

As of early 2022, 357 species of the 485+ known from Nova Scotia as a whole have been recorded or claimed from Brier Island. In the account that follows we summarize the status of each species, including, along with sight observations, information from a continent-wide online search for specimens from the island in 20 museums, indicating after each species name the location of specimens existing in the collections of Acadia University, Wolfville, Nova Scotia (AU), the National Museum of Canada (now Canadian Museum of Nature) in Ottawa (CMN), the University of Kansas Natural History Museum and Biodiversity Institute, Lawrence, Kansas (KU), the Museum of Comparative Zoology, Harvard University (MCZ), the Nova Scotia Museum of Natural History, Halifax (NSM), the Royal Ontario Museum, Toronto (ROM), the University of Michigan Museum of Zoology, Ann Arbor, Michigan (UMMZ), and the existence of photographs (P), as documentation (compiled as digital images by Laviolette). Some of the museum specimens, especially of passerines, now in Halifax, Wolfville, and Ottawa, were birds found dead at the Western Light in spring and fall. Many were prepared by John Kearney, then of Acadia University, to form the basis of the Robie Tufts Museum at Acadia University.

Laviolette and Mills compiled many of the historical records, including the Lents' and many others, from the *Newsletter* of the Nova Scotia Bird Society and its successor, *Nova Scotia Birds.* We also had access (thanks to Ian McLaren) to the summaries of records from early years (up to 1984) of *Nova Scotia Birds* compiled

by Fulton Lavender for the third edition of *The Birds of Nova Scotia* (Tufts 1986). Laviolette provided information from the early banding work in addition to his own studies. Over the years, visits by many Nova Scotian birders and increasing numbers of North American and Old-World birders have provided a great deal of information, much of it undocumented, mainly from late summer and autumn. There is also information from multi-year surveys for breeding bird atlases in 1986-1990 and 2006-2010 (see our introduction to the section on breeding birds), from John Brazner's wetland surveys, and from Christmas Bird Counts (CBCs). Eric Mills's records of birds seen on many trips to the island began in 1969; they are now available in a computerized database (AviSys) that has been used extensively in this review and in recent years on eBird. Since the first appearance of this monograph in 2011, the online reporting system eBird has come to dominate field ornithological records. In 2022 this amounted to more than 62,000 individual species reports from Brier Island, all of which have been scrutinized for information. We have brought all of this together judiciously into an annotated list of the birds of the island that represents their status and that will give insight into the possibilities of and questions for future studies. A checklist of the birds of the island in an appendix summarizes all the records and summarizes their status.

Most records not attributed to an observer or to a collection are from the seasonal accounts in *Nova Scotia Birds* (or its predecessor publications) or from our database. Many species, especially from early trips to the island, are undocumented by field notes or photographs, so we had to make informed judgments about which of these to include. With common regularly occurring species this is not a problem, but the real rarities and word of mouth accounts have called for the Wisdom of Solomon. In general, we have included single-observer records when we concluded that they were credible, that is, when they were adequately documented.

Wickerson Lent's life-list, in his copy of the 1947 edition of Peterson's *A Field Guide to the Birds*, presents us with some problems. Most of the entries, which are undated and for which there are no localities, correlate well with information from other sources. But there are a number of species in the list as yet undocumented on the island: White Pelican, white morph Great Blue Heron (Great White Heron), Wood Ibis, King Rail, Yellow Rail, Black Rail,

American Oystercatcher, California Gull, Little Gull, Ivory Gull, Sooty Tern, Common Ground Dove, Barn Owl, Screech Owl, Great Gray Owl, Fish Crow, Carolina Chickadee, Tufted Titmouse, and Kirtland's Warbler. We cannot be sure, but it is likely that most or all were seen on the island, and Faye Lent tells us that she remembers being shown a Great White Heron, a Wood Ibis and a Sooty Tern by her father on unrecorded dates in the 1960s and 1970s, and of being told by him about a White Pelican at sea close to the island in the 1950s. Why then were they not reported to the Bird Society, recorded in notes, or collected? We do not know.

Lent also records in his life-list what are probably first records for the island (and some for the province) of the following species: Mute Swan, Gray Partridge, Cory's Shearwater, Black Vulture, Purple Gallinule, Curlew Sandpiper, Ruff, American Avocet, Sabine's Gull, Sandwich ("Cabot's") Tern, Acadian Flycatcher, Yellow-throated Vireo, Carolina Wren, Blue-winged Warbler, Louisiana Waterthrush, Seaside Sparrow (recorded as "Cape Sable Sparrow"), and Brewer's Blackbird. He also lists Wilson's Plover, only the second record from the island. Without further information and documentation, we have not included these in the annotated list but we mention them here for the record.

The order and nomenclature (including French names) followed in the annotated list are based mainly on the American Ornithological Society's *Check-List of North American Birds* (2020), which incorporated a major revision of the Orders and Families of North American birds (see Chesser *et al.* 2016, 2017, Retter 2016, 2017, 2021). The classification of birds is in a state of flux not seen for many decades, based in part on changing concepts of what constitutes a valid species (see Minor 2020, Howell 2021) and particularly on molecular genetics, especially analysis of mitochondrial DNA and, the gold-standard, entire genomes, as indicators of evolutionary relationships. As a result, the order of the major groups of birds and the sequence of individual species is markedly different from 2011. There is evidence that these profound changes are continuing (see Chesser *et al.* 2021, in which there are major rearrangements of passerine groups and several revised scientific names). One slightly variant version of the changes beginning in 2016 is presented in the widely used seventh edition of the *National Geographic Field Guide to the Birds of North America* (Dunn &

Alderfer 2017), which, for the convenience of field birders, is the basic arrangement we have chosen to use, with a few nods to the more recent literature, rather than attempting to track every annual change from 2016 through 2021.

We dedicate this monograph to Wickerson Lent, the presiding genius of birding on Brier Island for so many years, and to Madeline Lent who faithfully recorded the birds of the island at the same time (Fig 6). No one who met Wick Lent can forget the force of his personality, the compelling stories that he told, or the effect that his interest in birds had on at least two generations of birders. His initials pervade this monograph. Madeline was quieter and self-effacing, but her contributions to Nova Scotian ornithology through meticulous recording were enormous. We also acknowledge the contributions of Ross Anderson (1940-1988), who renewed the banding operations on the island, and of Phyllis Dobson (1906-1997) and C.R.K. (Charlie) Allen (1908-1998), who enjoyed the island so much, contributed to our knowledge of its birds, and set standards of humanity and civility that are characteristic of many Nova Scotian birders. The loss of Ian McLaren in 2020 (A. McLaren et al. 2021, McLaren family 2021) brought to an end his enormous contributions to Nova Scotian ornithology. His influence is found throughout this monograph.

GEESE, SWANS AND DUCKS

Greater White-fronted Goose / Oie rieuse *Anser albifrons* (P)

Only one record: four were seen and photographed in late April 1988 (CAH – see 1989. *Nova Scotia Birds* 31(1): 12 and 31(2): 38). Birds from both North American and Greenland subspecies of this vagrant goose have been seen in Nova Scotia, but the published photograph does not allow the subspecies of these birds to be determined.

Snow Goose / Oie des neiges *Anser caerulescens* (NSM; P)

Apparently first recorded as a specimen collected 6 October 1962 (WL), followed by one seen on 16 May 1965 (WL). Small groups and individuals show up occasionally in Pond Cove in the autumn: for example, 50-75 reported in early October 1993 (RBS); 4 flying over the island on 18 October 1995 (SJF & David Young);

unrecorded numbers and location on 3-4 October 1998; 17 adults and an immature from 8-11 October 1999 (NSBS); a group of 6 adults and 4 immatures from mid-October into early November 2003; an adult with Canada Geese from at least 15 October-5 November 2007 (CAH, ELM); an immature in the big pond on 3 October 2014 (RBS); and one on Gull Rock Point on 4 January 2020. The birds scrutinized in 2003 and 2007 were large-billed and by comparison with nearby Canada Geese were large-bodied, hence almost certainly Greater Snow Geese, *C. c. atlantica*. "Blue" individuals reported on 16 May 1965 (WL) and 2-3 October 1982 (SIT) were likely to have been of the nominate race *C. c. caerulescens*.

Brant / Bernache cravant *Branta bernicla* (AU, CMN, KU; P)

Regular in spring and fall, usually from March into late May, in flocks of up to 600, and in smaller numbers in fall from October into December. Numbers appear to have decreased since the 1960s, possibly due to the decline of eelgrass (*Zostera marina*) or to changes in their migratory staging areas and routes, the latter noted earlier by Erskine (1988). Flocks may be found in Pond Cove, along the west side of the island near Whipple Point, and in small numbers on and around Peters Island. A group of 3000 on 6 March 1963 (WL) was unusually large, and WL reported a peak of 1000 on 15 March 1965. The earliest spring arrivals were 13 on 1 February 2014 (RBS), 300 on 17 February 1989 (RBS), and 50 on 18 February 2001 (*fide* George Garron). Sometimes a few linger into the first week of June. A few present on 28 January 1964 (WL) may have been overwintering. Autumn numbers are less well documented, but most arrive in early November and a few may still be present into the third week of December or even overwinter. In the spring, the Brant on Brier Island arrive and leave later than the much larger groups that congregate on the flats between Cape Sable Island and Cape Sable, Shelburne Co., suggesting that they represent a separate population, probably from a different breeding area in the Arctic. One Black Brant, *B. b. nigricans*, was studied at length among about 200 *B. b. hrota* in Pond Cove on 29 April 1999 but was too wary to be photographed (ELM, IAM; 1999. *Nova Scotia Birds* 41(3): 9). The first known specimens of Brant from the island were collected by N.S. Goss on 25 March 1880.

Canada Goose / Bernache du Canada *Branta canadensis* (P)

Since about 1999, a few to several pairs, usually attributable to *B. c. canadensis*, have nested on the island, usually in Pond Cove, in the Big Meadow, or on Peters Island (despite the gull colony). Groups of up to high 30s are common in Pond Cove in mid and late summer, probably representing the broods of multiple nests. Migrants are regular in small numbers in spring and autumn, usually overflying the island. Small numbers overwinter most years. Three of a group of 24 migrants in Pond Cove on 8 April 2004 appeared to be of the darker-breasted, slightly smaller subspecies of northeastern Canada and SW Greenland, *B. c. interior.*

Tundra Swan / Cygne siffleur *Cygnus columbianus* (AU)

Two records. WL saw four on the island on 9-16 November 1966. Three were collected on 16 November (WL, CC), probably all in Pond Cove. Two adults and an immature in Pond Cove, 10 November 1973, were very wary and flew off to the northwest.

Mute Swan / Cygne tuberculé *Cygnus olor* (P)

One record, an immature found in Westport Harbour about 1 January 2001 and photographed (CAH; 2001. *Nova Scotia Birds* 43(2): 12). Late in the winter it was found dead in Freeport Harbour, across Grand Passage. No evidence could be found that this bird was of captive origin. The location and the shyness of the bird also suggest that it was not an escape and came from the introduced population in New England.

Wood Duck / Canard branchu *Aix sponsa* (AU; P)

A scarce migrant, reported as breeding during the first Maritimes Breeding Bird Atlas project, 1986-1990 (Erskine 1992, p. 34), but with no evidence of breeding since then. Apparently first recorded as specimens, 30 September 1965, and (unusually) on 5 February 1967 (WL). There have been several sight records since then, ranging from 21 April-25 June and 27 August-1 November, the most unusual of which was a group of nine in the big pond, Pond Cove, on 19 May 2013.

Mallard / Canard colvert *Anas platyrhynchos* (AU; P)

Mallards appear to be less well suited to the island than Black Duck. Although far from rare, and increasing in abundance, there is no firm evidence yet of breeding apart from the presence of pairs during breeding season. Scarce in the early years, there are

records now from every month of the year in low numbers, and Black-Mallard hybrids frequently appear with migrants arriving in October. One or two Mallards are often with Black Ducks in Pond Cove and regularly occur with them in the intertidal of Westport harbour. A specimen was collected in March 1965 (WL).

American Black Duck / Canard noir *Anas rubripes* (P)

A very common migrant and breeding species. Nesting birds may be found in almost any sizeable wet area, but especially in the Big Meadow-Pond Cove areas. Overwinters in considerable numbers, feeding in intertidal areas of Westport and Pond Cove. The first downy young appear in the last week of May and some may still be appearing (from repeat nesting) in late July.

Gadwall / Canard chipeau *Anas strepera* (P)

Uncommon migrant and possible breeder. In accord with the increasing abundance of this species in the province, there have been about 20 or more records since spring 2002, including a pair that may have nested unsuccessfully in May-June 2006 (no nest found, and no young seen) in the big pond, Pond Cove. Again, from April through June 2007 and in the spring of 2011, a pair was present in Pond Cove but there was no evidence of successful breeding. Lone males apparently overwintered in Westport with Blacks and Mallards in 2012-2013 and 2018-2019. A male with Black Ducks in Pond Cove, 1 October 2007, was a migrant.

Green-winged Teal / Sarcelle d'hiver *Anas crecca* (AU, ROM; P)

Common in spring and fall (earliest sight observation 6 April, latest 21 December); specimens exist from March 1965 and September 1967 (WL, Barry Kent MacKay). Breeds, probably annually – for example, a female with young in the big pond, Pond Cove on 3 July 2017 (Mark Dennis). In late July, post-breeding birds begin to arrive on the island, particularly in the big pond, Pond Cove, peaking at up to 150 birds in early to mid-October. Twenty-seven on 28 April 1983 were undoubtedly migrants. Outside the peak seasons, isolated individuals may be found feeding with other ducks, especially Black Ducks, in the intertidal zone.

American Wigeon / Canard d'Amérique *Mareca americana* (P)

A regular migrant in small numbers, usually in Pond Cove, but occasionally seen feeding in the intertidal zone in other areas of the island. Earliest arrival on 6 April, the latest in winter 23 January.

Since at least July 2016, when a female with a downy young was seen in the big pond, Pond Cove, a sparse breeder. Post-breeding individuals and sometimes small groups frequently arrive in late August and linger through the end of October or even well into winter

Eurasian Wigeon / Canard siffleur *Anas penelope*

An adult male found in the big pond, Pond Cove, by David Currie, Michael King and Clyde Stoddart on 13 May 2011, present at least through 14 May, was the first recorded from the island. This species is regular in small numbers throughout the province in fall and winter, notably in the Halifax-Dartmouth area, so it was overdue on Brier Island.

Northern Pintail / Canard pilet *Anas acuta*

A spring and fall migrant in low numbers (earliest 4 March, latest 16 December). From mid August into November, one or a few post-breeding birds usually join the Black Ducks in the big pond, Pond Cove. One was on the CBC on 14 December 2015.

Northern Shoveler / Canard souchet *Spatula clypeata*

A scarce migrant in spring and fall. The first bird reported apparently spent part of September 1963 on the island (WL). A pair was in the little pond in Pond Cove on 5 April 1986 (RBS). Recent records include a female in the big pond, Pond Cove, 1 October through 3 November 2006, a pair in the same place 12 May 2007, a female there on 28 September 2008, and one on 16 May 2016 (Russel Crosby; photographed).

Blue-winged Teal / Sarcelle à ailes bleues *Spatula discors* (P)

Occasional breeder (female with half-grown young, 22 July 1987), but mainly a regular migrant in low numbers in spring and especially fall. Earliest spring record, 2 April 1994, the latest in fall on the Christmas counts of 21 December 1981 and 13 December 2005. Post-breeding birds from off-island frequently appear in small numbers in the big pond, Pond Cove, from late August through September.

Cinnamon Teal / Sarcelle canelle *Anas cyanoptera*

One sight record, a male in eclipse plumage that arrived with a flock of 20 Blue-winged Teal 28 August 1980 and was present into early September (ELM, Robert Currie, Edgar and Francis Spalding). Field notes indicate that this bird was larger

overall, darker, plainer- and larger-headed, and more spatulate-billed than the accompanying Blue-wings, and especially that it had deep red-orange sides and breast (too dark for iron-staining) unlike all the Blue-wings with it. A very similar bird present on Seal Island, Yarmouth Co., in September 1983 was assessed by McLaren *et al.* (2009) as a Cinnamon Teal.

Redhead / Fuligule à tête rouge *Aythya americana* (AU; P)

At least four records. The first was a specimen taken on the unusually early date of 22 August 1967 (WL). Another was present on 23 September 1967. A male found on 24 January was present through 11 February 2003 (CAH, Robbie Denton). A male (perhaps the same one) wintered with Black Ducks in Westport harbour from mid-December 2003 through February 2004, occasionally commuting to Pond Cove, and another wintered in Westport and spent time with Black Ducks in Pond Cove from winter 2004-2005 through the first week of June 2005.

Ring-necked Duck / Fuligule à collier *Aythya collaris*

An uncommon migrant, often with scaup in the big pond, Pond Cove (earliest 2 April, latest 23 December). Most records fall in April-May and September-November, but two immatures, possibly from the breeding population on Digby Neck, were in the big pond, Pond Cove, from 19-23 August 1975. Others, age unspecified, were reported on 29 August 1980, 26 August 2007, 5 June 2009, and 1 June 2017.

Tufted Duck / Fuligule morillon *Aythya fuligula*

One record, an immature male with a Lesser Scaup in the big pond, Pond Cove, 12-13 November 1996 (ELM, IAM).

Greater Scaup / Fuligule milouinan *Aythya marila* (AU; P)

Mainly a fall migrant in October through mid-December in small numbers in Westport harbour and Pond Cove. Small numbers may also occur in spring from late January through the first week of April. A specimen was taken in October 1964 (WL).

Lesser Scaup / Petit fuligule *Aythya affinis* (AU)

The increase of this species in eastern North America during the past few decades has been reflected in records on Brier Island. First taken as a specimen on 6 February 1971 (WL), followed by another on 20 February 1980, records become regular only from

1996 to the present, although this species is far less abundant than Greater Scaup. There is only one spring record, a female in the big pond, Pond Cove, 9-10 May 2008. A female in the big pond, Pond Cove, 28-31 August 2001, was unusually early for fall migration. Most fall records extend from late October to mid December, including one on the CBC of 14 December 2021 (Jake Walker, Rick Whitman) that was still present in late January 2022.

Common Eider / Eider à duvet *Somateria mollissima* (AU, KU, NSM, KU, ROM; P)

An abundant breeder (first downy young during the first week of June), common migrant, and wintering species. On 18 February 1966 the wintering numbers were estimated to be 3500 (WL). Numbers breeding around the island seem to have increased since the 1970s, likely due to the reduction of illegal hunting, although the summering flock of non-breeders in Pond Cove, several hundred birds in the 1970s and 1980s, has decreased greatly in size. In May 2016, John Paterson of the Nova Scotia Nature Trust estimated 150-200 nests on Peters Island alone. Individuals of the east coast-breeding subspecies *S. m. dresseri* are ubiquitous in summer and predominate in wintering flocks, although at least a few *S. m. borealis* from farther north are to be expected in winter. N.S. Goss took a specimen of *dresseri* at Gull Rock on 13 March 1880, and others come from 30 December 1966 (AU) and various dates from 1967 to 1975 (ROM).

King Eider / Eider à tête grise *Somateria spectabilis*

Rarely recorded, but probably regular among wintering and migrating flocks of Common Eiders around the island. Probably typical are records of one on 20 December 1988 (BLM) and a male with Common Eiders flying by Western Light on 7 April 2012. There are two summer records, a female present among Common Eiders in Pond Cove, 23 July through 6 September 1971, and a female on the beach in Pond Cove around 15 July 1972.

Harlequin Duck / Arlequin plongeur *Histrionicus histrionicus* (AU, KU; P)

Overwinters in small to moderate numbers (1-27 reported), mainly around offshore rocks like Green Island and Gull Rock, although also seen regularly along the rocky shores in Pond Cove, near Western Light, in Pea Jack Cove, at Northern Point and in Seal Cove.

Earliest in fall, 9 October 2011 and latest in spring about 22 May 2005 (David and Janey Hughes). First documented by specimens (now in KU) taken on 22 April 1880 by N.S. Goss; others were taken on 11 November 1964, in January 1965, September and November 1966 and October 1970 (WL, CC).

Long-tailed Duck / Heralde kakawi *Clangula hyemalis* (AU, CMN; P)

A regular overwintering species, usually in flocks of 10-50, and usually from early November through late April, although there are records as early as the first week of October and as late as the last week of May. Numbers appear to have declined during the past 20 years; CBC numbers have decreased from maxima in the 400s in the early years to less than 100 on many counts since the mid 1990s. First documented by a specimen taken 15 January 1968 (WL) now in AU.

Surf Scoter / Macreuse à front blanc *Melanitta perspicillata* (AU; P)

A regular migrant mainly from September through November and in May, overwintering and occasionally summering in small numbers. First documented by a specimen taken on 7 October 1967 (WL). The three scoters are about equally frequent, although Surf outnumbers the other two. Observations from close to shore probably underestimate the abundance of migrants past the island because there is a well-documented larger migration of scoters, mainly eastward, past the Point Lepreau Bird Observatory on the New Brunswick shore of the Bay of Fundy in spring, dominated by Black and Surf Scoters in that order (Cameron 2014).

Black Scoter / Macreuse noire *Melanitta americana* (AU, KU; P)

Very similar in occurrence to the other scoters, although Black Scoters tend to be the most frequent summering species (always in very low numbers). Usually second in abundance to Surf Scoters during spring (May-early June) and fall (October) migrations, unlike the situation off Point Lepreau, NB, to the north, where Black Scoters predominate in spring compared with Surf and White-winged (Cameron 2014). Six hundred passing Northern Point on 5 November 2016 were exceptional. Specimens from 27 March and 14 April 1880 (N.S. Goss) are in KU, and from 20 October 1967 are in AU (WL).

White-winged Scoter / Macreuse brune *Melanitta fusca*

Like Surf and Black Scoters, a regular migrant, frequent near shore in small flocks from early fall through May (peaking in September-October), and occasionally seen in summer. Observations at the Point Lepreau Bird Observatory in New Brunswick, which operates in spring only, indicate that this species is outnumbered by Surf and Black Scoters during spring migration (Cameron 2014), and observations from Brier Island indicate that this is also true in fall.

Bufflehead / Petit Garrot *Bucephala albeola* (P)

Overwinters in small numbers (singles to flocks of 10-35) from early November (earliest record 11 October) until early May (latest 16 May), occurring mainly in the big pond, Pond Cove until it freezes, and in Westport harbour.

Common Goldeneye / Garrot à oeil d'or *Bucephala clangula* (P)

Common in winter in groups usually below 100 from late October through April (occasionally mid May) in Pond Cove and Grand Passage around Peters Island. Overwintering groups are augmented by migrants in March. Early fall migrants may appear in September and occasional individuals oversummer, usually in Pond Cove.

Barrow's Goldeneye / Garrot d'islande *Bucephala islandica* (P)

At least fifteen records from mid-December through early April, including the first on 19 December 1977, a group of three, a male and two females in the big pond, Pond Cove, on 8 April 2011, a female on 23 January 2015 (RBS), a pair with Commons near Northern Point on 2 March 2017, two drakes near Peters Island during the CBC, 14 December 2017, up to 3 in Gand Passage in March-April 2018, and three on 1 January 2021. This species is likely quite regular in flocks of overwintering Common Goldeneye (most of them in Pond Cove) which rapidly become gun-shy in the fall and are hard to examine closely.

Hooded Merganser / Harle couronné *Lophodytes cucullatus* (AU)

An uncommon migrant, almost invariably in the big pond, Pond Cove, where flocks larger than 15 are unusual. One or two post-breeding individuals may arrive there during the last week of August and stay until late in the autumn. Spring occurrences are infrequent, usually in the last week of March and first week of April. One was in a small pond during the CBC of 14 December 2021 (Jake

Walker, Rick Whitman). Documented by a specimen taken by CC on 29 November 1969 now in AU.

Common Merganser / Grand Harle *Mergus merganser*

A scarce migrant in low numbers in spring and fall, usually in the big pond, Pond Cove. Of 13 records, three were in April and the rest in December.

Red-breasted Merganser / Harle huppé *Mergus serrator* (KU, AU, ROM; P)

A regular and frequently quite common migrant and over-wintering species from late October through May. Post-breeding individuals from elsewhere are regular in July through mid September. First collected in March and April 1880 by N.S. Goss. A specimen in AU was taken in February 1965 and one in the ROM sometime in 1967 (WL).

Ruddy Duck / Érismature rousse *Oxyura jamaicensis* (AU)

Two specimens taken by CC on 10 December 1966 were apparently the first for the island. The only records since then, all from the big pond in Pond Cove, appear to be a male on 8 October 1995 (Joan Czapalay), an immature on 23-24 October 1998 (SJF *et al.*), a male on 14 November 1998 (IAM), and an immature seen with Common Goldeneye on 24 October 2005.

PARTRIDGE, PHEASANTS AND GROUSE

Gray Partridge / Perdrix grise *Perdix perdix*

Introduced to Nova Scotia beginning in the 1920s (see Tufts 1986, p. 134), and now extirpated in the province, Gray Partridge was never present as a resident species on Brier Island. One was reported, undocumented, on 8 September 1989 (Margaret Clarke) at a time when this species was still relatively abundant in Nova Scotia.

Ring-necked Pheasant / Faisan de Colchide *Phasianus colchicus* (P)

A well-established stable population of pheasants, likely fewer than a half-dozen breeding groups, has persisted on the island for at least the past fifty years. The main breeding areas are along Lighthouse Road, near the east end of Pond Cove, and near Northern Point.

Ruffed Grouse / Gélinotte huppée *Bonasa umbellus* (P)

Before the spring of 1997, Ruffed Grouse were absent from the island, or only sporadically present (reports on 5 September 1977 and 30 April 1988; a drumming male was reported in the spring of 1989). Since then, however, a thriving population has developed and breeds (confirmed). Drumming males may be heard near Northern Point, near the Lodge, along Gull Rock Road, along the Lighthouse Road, and in the Camp Road – Whipple Point area.

Spruce Grouse / Tétras du Canada *Canachites canadensis* (P)

Only two confirmed records, the first a bird shot by a hunter and examined by ELM on 11 October 1971, the second an adult male photographed along the Camp Road on 9 April 2011. One was reported from the Lighthouse Road on 23 or 25 August 2008 (Nicholas von Maltzahn). These records and anecdotal reports indicate that the occasional bird flies across Grand Passage from Long Island or arrives from the mainland, which has the closest known established populations according to data from the second Maritimes breeding bird atlas (2005-2010 – see Stewart *et al.* 2015, pp. 140-141).

GREBES

Pied-billed Grebe / Grèbe à beque bigarré *Podilymbus podiceps* (AU)

Scarce but regular, mainly in the big pond, Pond Cove, from July into November. Most have been lone immatures, probably moving away from breeding sites on the mainland, some of which could be as close as Digby Neck. A specimen was taken on 30 October 1968 (WL).

Horned Grebe / Grèbe esclavon *Podiceps auritus* (AU, NSM)

A regular migrant in low numbers from mid March (sometimes as early as mid February) to mid May and from mid November to late December. One from 18-20 May 2002 and eight on 19 May 2017 (all in breeding plumage) were exceptionally late. One at Western Light on 1 January 2021 and another in Pond Cove on 4 January 2020 may have overwintered. A specimen in the NSM was taken on 31 January 1959, and in AU was taken on 12 December 1966 (WL).

Red-necked Grebe / Grèbe jougris *Podiceps grisegena* (AU, ROM; P)

A common spring migrant from mid March (earliest 18 February) to early May and in fall from early October through December. Numbers in early winter may be considerable, for example, 50 on the CBC of 23 December 1986. At least a few winter around the island, complicating the determination of migration dates. In spring, the latest record is 19 May, and the earliest in fall 16 September. There are three August records: one on 12 August 1993 (RBS); one in Pond Cove, 13 August 2009 (Mike King); and one at Northern Point on 29 August 2018 (Jake Walker). CC took a specimen on 30 December 1969, now in AU, and there is one from 27 January 1967 in the ROM (Harry Lent).

PIGEONS AND DOVES

Rock Pigeon / Pigeon biset *Columba livia* (P)

Present in small numbers throughout the year, but until 2001 all the birds on the island appear to have commuted from colonies in Freeport and Tiverton. Since then, a few to several pairs have been breeding in the fish plant buildings in Westport. Occasional individuals that appear to be strays from the mainland or New England appear along the shores of the island now and again.

White-winged Dove / Tourerelle à ailes blanches *Zenaida asiatica* (P)

Two records. One visited David Pugh's feeder on the outskirts of Westport from 22-24 June 1999 (1999. Nova Scotia Birds 41 (4): 20; photographed). Another, because of its pale plumage probably of the southwestern subspecies *Z. a. mearnsii*, was at or near CAH's feeder in Westport from about 19-25 May 2010 (CAH, RBS; Fig 13).

Mourning Dove / Tourerelle triste *Zenaida macroura* (P)

Increasingly common year-round; breeds. The first established breeding record on the mainland was in 1964 (Tufts 1965). Fifteen on the island on 15 October 1963 (1963. Nova Scotia Bird Society Newsletter 5 (3): 8), individuals on 16 and 27 September 1964, a pair that arrived on 22 May 1965, 27 on 15 April 1967 (WL), two on 16 November 1969, and singles on 22 February and 10 March 1970 (WL) were noteworthy at the time. At first a spring and fall migrant (arriving in April and departing in November) and an occasional

Fig 13 This White-winged Dove spent a couple of days around a Westport feeder beginning about 19 May 2010. Photo: Richard Stern.

winter visitor, since the late 1990s summering birds, at least some of which breed, have become more and more common and numbers at feeders in winter have become significant. At least some (probably most) of the birds that summer leave the island and those present in fall and winter come from off the island; for example, on 19 October 2008, 7+ were seen arriving at Northern Point at a time when there were very few resident birds, and on 18-19 September 2009, the number in Westport increased from 4 to 35 overnight.

CUCKOOS

Yellow-billed Cuckoo / Coulicou à bec jaune *Coccyzus americanus* (AU; P)

An uncommon migrant, probably more abundant than about eleven records indicate because of the heavy ground cover on the island. Spring records include 7 June 1959 (Madeline Lent), 29 April 1983, 29 May 1971, 16-17 May 2016 (Laura Titus) and 20 May 2017. As in the rest of the province, this species is most regularly seen in fall migration, usually in October, but the records range from late August to mid November, peaking during the first ten days of October. Individuals were banded on 28 September 1979 and 8 October 1980. There is a photograph from 29 September 1979 and specimens were taken on 15 October 1979 and 2 July 1980.

Black-billed Cuckoo / Coulicou à bec noir *Coccyzus erythropthalmus* (AU, NSM; P)

Three spring records range from 17-25 May. There are four early summer records: 7 June 2010 in Westport; 22 June 2010 (RBS);

one found dead and photographed in Westport about 25 June 2009 (Laura Titus, JUF); and 28 June 1988 (Don and Carol MacNeill). There are three late summer sight records, 20 August 1966, 29 August 1973, and 11 August 2016 (David McCorquodale), and four in fall: 8 September 1983; 29 September 1979 (photographed); 17 October 1996 (IAM); and 7 October 2011, in addition to banding records for 3 August 1981, 1 September 2019, 2 September 1976, 5 September 1979, 25 September 1982, and 28 September 1979. One specimen exists, from 13 October 1958 (collector unknown). This cuckoo, which breeds sparsely on the mainland of the province, is undoubtedly more common in migration than the records indicate because it frequents heavy ground cover.

GOATSUCKERS

Common Nighthawk / Engoulevent d'Amérique *Chordeiles minor* (P)

A scarce migrant in late May; much more common in fall migration between about 20 August and 20 September. One flying southwest past Northern Light on 31 July 2009 was unusually early, and others in Westport in early October 2010 (CAH) and at Western Light on 7 October 1990 were unusually late.

Eastern Whip-poor-will / Engoulevent bois-pourri *Antrostomus vociferus* (P)

Two records. The first was found roosting just off the Lighthouse Road on 4 September 1994 (Bernard Forsythe, ELM). Another was seen in the headlights of RBS's car after dark along the Camp Road on 18 May 2012. Whip-poor-will is now a scarce breeding species in Nova Scotia, but migrants and vagrants are likely to be more frequent than these sightings indicate.

SWIFTS

Chimney Swift / Martinet ramoneur *Chaetura pelagica*

A sparse migrant from mid May into early June and from late July into the first week of September (latest 25 October 2019). Fall records are most frequent between about 21 August and 7 September. WL reported 2000 over the island on 24 August 1965. Five in Westport on 28 October (David Pugh) and one at the Northern Light on 16 November 2005 were undoubtedly among

the thousands of swifts displaced northeastward (some as far as the Azores) by Hurricane Wilma in late October that year.

HUMMINGBIRDS

Ruby-throated Hummingbird / Colibri à gorge rubis
Archilochus colubris (P)

A common migrant, mainly in the last half of May (earliest 2 May) and from about 20 August through the third week of September. Migrants occur in very low numbers into late September (latest 10 October). There is one unusual and undocumented report from 25 April 1995 (CAH, Claire Leng). Breeding has not been established, but residents of Westport and a few birders report hummingbirds through the summer, so it probably occurs at least occasionally.

LIMPKIN

Limpkin / Courlan brun *Aramus guarauna*

As Tufts (1986, p. 150) stated the case, "an injured bird was captured under wharves on Brier Island in the mid-1950s and examined in the hand by Wickerson Lent who identified the bird only retrospectively." It is hard to know what to make of this record, although it must be said that WL had become a reliable authority on the birds of the island by the 1960s and had an excellent memory. Two later sight records of Limpkins in Nova Scotia, in 1964 and 1967 on Sable Island, were also by reliable observers.

RAILS, GALLINULES AND COOTS

Sora / Marouette de Caroline *Porzana carolina*

Our database shows only five records, all migrants, between 25 August and 5 September. In addition, one appeared at David Pugh's feeder in Westport on 8-9 September 1998, CAH reported (with notes) what was probably an immature in Pond Cove, ca. 26-30 October 2005, and found another on 2 November 2007.

Clapper Rail / Râle gris *Rallus crepitans* (P)

The first of two on Brier Island was found on 23 September 1957 near Western Light by a party of banders made up of John Comer, Wickerson Lent and Willett Mills (Lewis 1957, p. 23; W.J. Mills 1958). Many years later, in September 1998, one visited David Pugh's feeder on the outskirts of Westport and was photographed

(1999. Nova Scotia Birds 41(3): 32), revealing it, not surprisingly, to be from a southeastern U.S. population.

Virginia Rail / Râle de Virginie *Rallus limicola* (AU; P)

Rarely reported, although probably a sparse migrant in spring and fall as it is in the rest of Nova Scotia (where there is a breeding population). The first was reported on 6 September 1981 (SIT, Peter MacLeod *et al.*). One was flushed north of Whipple Point on 6 September 1982, and RBS found the head and bill of a recently dead individual near Pond Cove on 16 September 2016. A specimen in the Acadia collection was taken 14 October 1975 (Tommy Albright).

Purple Gallinule / Talève violacée *Porphyrio martinica*

There is a convincing report of one on David Pugh's property on the outskirts of Westport in early August 1995 (1996. Nova Scotia Birds 38(2): 6). One was found dead in the Big Meadow Bog on the remarkable date of 24 February 2016 by Mike Parker and Andy Sharpe of East Coast Aquatics and pictured on FaceBook (Conserving Brier Island).

Common Gallinule / Gallinule d'Amérique *Gallinula galeata* (AU; P)

An infrequent migrant, mainly in fall, for example, two on 10 October 1970, two immatures in the big pond, Pond Cove on 10 November 1970, one there on 10-11 October 2010, and a specimen taken 20 November 1973 (WL). One was in a gravel-pit pond along Pea Jack Road from 9 to about 11 June 2006 (George Garron, CAH, JUF; Fig 14) and another in the same location on 12 May 2016 (Rikki

Fig 14 Common Gallinule in a gravel-pit pond along Pea Jack Road in June 2006. Photo: June Farnsworth.

and Ralph Clements). One reported on the unusual date of 20 July 1984 appears to be undocumented (Diane Roy).

American Coot / Foulque d'Amérique *Fulica americana* (AU, P)

This relatively common migrant on the mainland has been reported only a few times on the island. The first was one reported during a Nova Scotia Bird Society field trip on 15 September 1963. WL took a specimen on 12 December 1966. Thereafter, there are sight records of an adult on 14 November 1999, another on 31 October 2003, one walking on the road in Westport on 3 November 2006 (CAH), and one on 26 August 2007. The most recent sightings were an injured individual captured and released in Westport on 23 September 2012 (photographed by ELM), and one in Westport on 26 October 2012 (Ken McKenna).

CRANES

Sandhill Crane / Grue du Canada *Antigone canadensis* (P)

Six records of this increasingly occurring species in the rest of the province. The first appeared in the Pea Jack Cove area in late May 1993 (Peter MacLeod, CAH); one spent 12-14 October 2005 around Pond Cove; another was in the Pond Cove area on 13-14 September 2007 (CAH); and one that was first seen on 28 May (Evan McDormand, CAH) was photographed overhead in Pond Cove on 29 May 2017 (ELM, AHM). The most recent sightings included one in fields at the end of Church Street, Westport, 7 May 2019 (Vicki Graham). One, possibly a juvenile, was present for on the island for a few days at the end of June 2020, wandering the island, often seen along roads and in Westport at very close range. The May 2017 bird appears to be attributable to the large mid-continental subspecies *A. c. tabida* but details of the other birds are lacking.

STILTS AND AVOCETS

American Avocet / Avocette d'Amérique *Recurvirostra americana* (P)

An immature that appeared on 9 August 2007 (Fig 15) spent about two weeks in the area, at least through 24 August, mainly commuting between the Westport waterfront at low tide and the big pond in Pond Cove.

Fig 15 Brier Island's first American Avocet, along the Westport shore on 9 August 2007. Photo: June Farnsworth.

LAPWINGS AND PLOVERS

Black-bellied Plover / Pluvier argenté *Pluvialis squatarola*
(AU, ROM; P)

A common migrant in spring and fall. Spring arrivals usually appear around the second week of May (earliest 16 April – possibly wintering birds on the move) and extend into the first week of June (two, an adult and an immature, in Pond Cove on 10 June 2011 were unusually late). The first southward-bound adults usually appear during the last week of July and peak in early September. Thereafter the proportion of immatures increases through October and a few are usually present through mid November. One on a CBC and after, 18-29 December 1985, and another on the CBC of 14 December 2017, were unusually late, and an overwintering bird was in Pond Cove on 26 February 2008. A specimen in AU was taken 26 September 1966 (WL), and two in the ROM were taken 26 October 1972 (Barry Kent MacKay).

American Golden-Plover / Pluvier bronzé *Pluvialis dominica*
(AU; P)

Scarce in spring (two records, 23 May 1965 and 15 May 1993) but a regular fall migrant in moderate numbers. Fall dates range from 14 August to 4 November, peaking broadly in September. Specimens in AU were taken on 26 September 1966 and 6 September 1980 (WL).

Pacific Golden-Plover / *Pluvialis fulva*

An immature Golden-Plover present in Pond Cove near but not with a group of American Golden-Plovers on 5 September 2016

had convincing fieldmarks of Pacific Golden-Plover: warm buff coloration of body, cap and breast; lack of contrast on the buffy-yellow face and breast; brown-capped with fine yellowish streaks but without distinctly capped appearance; spotted back with many widely distributed yellowish spots in a not particularly dark background; and long legs. The primaries were hard to count, apparently because of molt. A similar bird just outside Dartmouth was reported by another observer as a Pacific Golden-Plover only a few days later.

Killdeer / Pluvier kildir *Charadrius vociferus* (AU; P)

A regular spring and fall migrant, although considered uncommon through the 1960s. Occasionally breeds. Spring arrival dates range mainly from 2 April to the first week of May, although the Lents recorded one on 26 February 1965 and 12 on 10 March 1970. One said to be "hanging around" in Pond Cove about 10-16 February 2013 (Scott Leslie) could have resulted from a southerly storm. In late summer, breeders and immatures from off the island often appear in Pond Cove in late July, and birds that appear to be migrants occur from mid August to late October. Chadbourne (1889) documented the arrival of Killdeers along the U.S. and Canadian east coast after a November gale that year, including some on Brier Island, speculating that an intense low pressure system was responsible for the occurrences. Killdeers do not breed every year, but we have evidence of it from the north end of Gull Rock Road, in Pond Cove, and in Westport. One on 26 February 1965 and another on 5 February 1999 were unusual winter occurrences, probably related to southerly storms, and there were 6 during the CBC, 31 December 1966, another during the 1995 CBC, and one on the CBC of 14 December 2017. Even more remarkable were 17, along with a Semipalmated Plover, on the Westport waterfront during a CBC, 20 December 1973. A specimen in AU was taken 27 October 1969 (CC).

Wilson's Plover / Pluvier de Wilson *Charadrius wilsonia* (KU)

Extremely rare anywhere or anytime in Nova Scotia, there is only one record for Brier Island (also the first for the province), a female collected on 28 April 1880 (Goss 1885), probably in Pond Cove. This became part of N.S. Goss's private collection in Topeka, Kansas; it is now in KU.

Semipalmated Plover / Pluvier semipalmé *Charadrius semipalmatus* (KU, AU; P)

A common migrant, especially in late summer and fall. The few spring records extend from 20 May to 3 June. Southbound birds, adults first, appear during the last week of July (earliest 11 July), peak in the middle of August (when up to 400 per day have been seen), and continue to pass through in lower numbers, with an increasing proportion of immatures, through October. Occasional immature birds are not uncommon through November, but there is only one winter record, an adult with Killdeers on the Westport waterfront on 20 December 1973. N.S. Goss took a pair on 10 May 1880 (now in KU), and a specimen from 12 September 1969 is in AU (CC).

Piping Plover / Pluvier siffleur *Charadrius melodus* (KU; P)

This threatened breeder on mainland beaches is a scarce spring and fall migrant on Brier Island. Our five spring records are all from 6-29 April., except for one on 5 June 2009 that may have been a failed breeder from elsewhere. Early fall migrants may be missed, although our records extend from 26 July to 29 September. During his stay on the island, the Kansas ornithologist N.S. Goss took specimens, now in KU, on 21 and 24 April 1880.

SANDPIPERS

Upland Sandpiper / Maubèche des champs *Bartramia longicauda* (NSM, AU)

Nine records in April-May and August-October: 20 August 1964 (specimen, Chester Lent); 29 August 1965; 2 on 14-15 May 1967 (specimen, WL); 2 May 1970 (specimen, CC); 24 April 1974 (specimen, WL); 4-7 September 1974 (BMT); 29 August 1980 (George Bryant); 17 May 1987; and 13 October 2003 (FLL *et al.*). In 1964, WL was quoted as saying that "... up to 1938, at this time of year [late August], flocks of Upland Plover [sic] came to Brier Island to feed on the ripening blueberries. They have dwindled since that time to an occasional one flying over" (1964. Nova Scotia Bird Society Newsletter 6 (3): 24). That is still true.

Whimbrel / Courlis corlieu *Numenius phaeopus* (KU, NSM; P)

A scarce migrant in spring, the earliest 5 May, the latest 27 May. Fall migrants appear in late July (earliest 12 July) and then are

regular in passage, occasionally stopping to feed in Pond Cove or on the barrens at Northern Point throughout August and into September (latest 17 October). Two specimens, the first taken by N.S. Goss on 5 May 1880, and a male taken 20 September 1962 (WL).

Long-billed Curlew / Courlis à long bec *Numenius americanus*

One record only: 28 August 1989 in Pond Cove (John & Shirley Cohrs), with convincing details (Cohrs 1991).

Hudsonian Godwit / Barge hudsonienne *Limosa haemastica* (P)

A scarce migrant from late July to early October, usually in small numbers; six in Pond Cove on 13 August 1986 (RBS), 15 on 5 September 1988 (LAL, PAC), and 11 on 1 September 2016 were unusual. An adult in near full winter plumage in Pond Cove on 29 September 2008 with Black-bellied Plovers was within the migration limits for the mainland (JUF; photographed).

Ruddy Turnstone / Tournepierre à collier *Arenaria interpres* (P)

A sparse spring migrant, often abundant in late summer and fall, and occasional in early winter. In spring most birds appear during the last ten days of May (earliest 22 April, latest 1 June), while the fall migration of adult birds begins in the last ten days of July, peaking in mid August, when it is supplemented increasingly by immatures, and ends by the third week of October. One hundred on 15 September 1967 were unusual for the date. Occasional late migrants have been seen to mid November. There are eight winter records between 1966 and 2001, ranging from 17 December to 13 January.

Purple Sandpiper / Bécasseau violet *Calidris maritima* (KU; P)

Although they are sometimes hard to find and to see, Purple Sandpipers are regular wintering birds, notably on the wave-washed Green Island and Gull Rock, occasionally on Peters Island, at Northern Point, in Pond Cove or near Western Light. Over the years, at least since 1960, numbers have ranged from only a few to more than 700 on CBCs. The first appear to arrive in the first week of November (earliest 10 October), and although most leave by the end of the first week in May, a few may linger (or still be migrating) to the end of that month. Seven reported near Peters Island on 8 August 1990 (Ken Thorpe & Janice Linder) and one in alternate plumage at Northern Light on 22 August 1999 (Ken McKenna) were highly

unseasonal and not documented. N.S. Goss took specimens on 10 and 12 March and 3 May 1880.

Red Knot / Bécasseau maubèche *Calidris canutus* (P)

A regular spring and early fall migrant in low numbers; occasional in winter. Most spring records are in late May (earliest 16 May, latest 2 June). The first fall migrants are early, during the last ten days of July, but the peak is in the last week of August, after which occasional individuals may appear as late as mid November. One was in Pond Cove during a CBC on 17 December 1992 and another during the CBC of 19 December 1995.

Sanderling / Bécasseau sanderling *Calidris alba* (ROM; P)

A sparse spring migrant, usually in the last half of May. One on 15 April 1973 may have overwintered somewhere nearby. Regular and common as a fall migrant, beginning in the last ten days of July when the first adults arrive, sometimes in significant numbers (60-90). Numbers decline after the end of August (200 on 7 September 1970, 200 on 13 October 1989, and 200 on 2 September 2002 were exceptional), but Sanderlings continue to be among the commonest small sandpipers into early November. A few stay into early winter, for example, 30 on a CBC 29 December 1961, 15 on a CBC 29 December 1964, one on a CBC 21 December 1971, three on a CBC 19 December 1972, and two on 3 December 2000. A series of specimens was taken in October 1972 by Barry Kent MacKay.

Semipalmated Sandpiper / Bécasseau semipalmé *Calidris pusilla* (CMN, ROM; P)

A common migrant in fall, but rather scarce in spring. Numbers recorded since about 2010 have decreased due to changes in the big pond, Pond Cove, where the flats have disappeared as the result of its outlet being sealed by changes in the beach. A few migrants appear in Pond Cove and on the Westport waterfront during the last week of May (earliest 14 May, latest 11 June). The first southbound adults, often in considerable numbers, appear during the last week of July (earliest 6 July), and are augmented or replaced throughout August and into the first week or two of September. In August, and occasionally in late July, varying from year to year and due to harassment by hawks, the numbers in Pond Cove have reached 1500+. A count of 2000 on 13 September 1989 (BMT, SIT) was exceptional for the date. The first immatures appear most years

about 20 August (earliest 12 August) and predominate after the first week or two of September. A few migrants continue into October (latest 17 October). Three specimens now in Ottawa (CMN) were taken on 5 September 1969 (WL) and one in the ROM on 28 October 1972 (Barry Kent MacKay).

Western Sandpiper / Bécasseau d'Alaska *Calidris mauri* (P)

First recorded 4 September 1969 (DWF, WL), when two were present with Semipalmated Sandpipers in Pond Cove. Since then, there have been at least nine reports, most between 27 August and 4 September except for one (without details) reported on 4 August 2000 (Rick Toochin), and immature males in Pond Cove on 20 September 1987 (IAM), 25 September 1993 (Edgar & Francis Spalding, photographed; 1994. Nova Scotia Birds 36 (2): 31), and 18 September 2000 (Angus MacLean). One very distinctive winter-plumaged bird was present and closely studied on 5 November 2005 in Pond Cove (ELM, IAM).

Least Sandpiper / Bécasseau minuscule *Calidris minutilla* (ROM; P)

A regular migrant in May-June in low numbers (earliest 11 May). Southbound adults arrive early, during the first week of July (earliest 6 July), and peak, in numbers, sometimes reaching 200 or more (800 on 24 July 1971), in Pond Cove from late July to the first few days of September. The first immatures usually appear during the last day or two of July and by the end of August predominate in the flocks. After the first week of September, numbers drop off sharply and only a few have been reported into October (latest 13 October). One specimen was taken on 3 September 1967 (Barry Kent MacKay). Like Semipalmated Sandpipers, Leasts have been affected by the sealing off of the big Pond by changes in the Pond Cove beach, but apparently to a lesser degree because of their preference for fresh-water margins in addition to weedy shores.

Little Stint / ***Bécasseau minute*** *Calidris minuta* (P)

One record of this rare Eurasian vagrant: an immature with Semipalmated Sandpipers was photographed in Pond Cove on 21 August 1997 (McRae 1999; Fig 16).

White-rumped Sandpiper / Bécasseau à croupion blanc *Calidris fuscicollis* (P)

Rare in spring, but a regular late summer and fall migrant in low

Fig 16 Moulting adult Little Stint in Pond Cove, 21 August 1997. Photo: Doug McRae.

Fig 17 An immature Baird's Sandpiper in wrack along the Pond Cove beach, 30 August 2009. Photo: Eric Mills.

to moderate numbers. The few spring records range from 11-29 May. The first adults join other southbound migrant waders during the last week of July (earliest 15 July), peaking in the middle of August in modest numbers (10-100). As the summer ends, immatures increase and a second peak of abundance (10-30/day) during the first half of October is dominated by birds of the year. A few migrants occur into November (latest 12 November).

Baird's Sandpiper / Bécasseau de Baird *Calidris bairdii* (P)

This species, in low numbers (usually 1-7 birds per day), is a regular feature of late August into October (earliest 1 August – usually after 21 August; latest 12 November) on the dry upper beach of Pond Cove or previously on the dry exposed flats of the big pond (Fig 17). Fifteen on 5 September 1967 (WL) and 11 on 27 August 1973 were exceptional. Most are immatures, although the occasional

adult has been seen late in the season (for example, 20-21 September 2001 and 5 November 2005).

Dunlin / Bécasseau variable *Calidris alpina* (P)

Generally uncommon in spring, when most records have been during the last half of May. One with Purple Sandpipers in Pond Cove, 28-30 April 2008, and twenty on 29 April 1999 (IAM) were exceptional for date (and in the last case for numbers). Dunlin are regular, although sparse, migrants in fall, mainly in late September and October (earliest 3 September; a sight record from 9 August 2000 is exceptional, BLM), although individuals are not unusual until mid November. CBC records date from 23 December 1969, 17 December 1992, 19 December 2000 and 16 December 2003.

Curlew Sandpiper / Bécasseau cocorli *Calidris ferruginea*

Only one record, an adult in near full breeding plumage with Short-billed Dowitchers in the big pond, Pond Cove, on 10 July 1971 (ELM).

Stilt Sandpiper / Bécasseau à échasses *Calidris himantopus* (P)

A regular but uncommon (1-5/day) fall migrant, the earliest on 26 July, the latest in early October (photographed, RBS). Most records range from the second week of August into the first few days of September. Nine on 26 July 1969 were both early and an unusual number.

Pectoral Sandpiper / Bécasseau à poitrine cendrée *Calidris melanotos* (AU; P)

A sparse migrant in spring, usually in mid April, regular in moderate numbers in autumn. An adult in Pond Cove from 25 July through 1 August 2002 was an unusually early migrant; most migration takes place between the last half of August and late October (latest 4 November) and involves 2-10 (exceptionally 15) per day. A specimen, 4 September 1969 (CC) is now in AU.

Buff-breasted Sandpiper / Bécasseau roussâtre *Calidris subruficollis* (P)

A regular but uncommon (1-4/day) fall migrant from late August through the middle of September, often into October (earliest 6 August, latest 30 October) in Pond Cove, where they may be found on the upper beach or previously on the dry upper part of the flats in the big pond (Fig 18).

Fig 18 An immature Buff-breasted Sandpiper (center, with an immature Semipalmated Plover on the right), inhabiting the same beach wrack habitat as Baird's Sandpiper in Pond Cove, 30 August 2009. Photo: Eric Mills.

Ruff / Combattant varié *Calidris pugnax*

Three records of this scarce Old-World sandpiper: a Reeve in Pond Cove on 22 September 1984; a black-morph male found by George and Louise Garron in Pond Cove on 16-17 July 1989 (IAM); and a Reeve there with Turnstones on 21 May 1991.

Short-billed Dowitcher / Bécasseau roux *Limnodromus griseus* (ROM; P)

Short-billed Dowitchers are scarce in spring (dates from 7-29 May), but among the earliest fall migrants, arriving in the first week of July (adults), usually peaking in mid-August (mainly immatures), and occurring rarely into October (latest 12 October). Although 300+ (mainly adults) on 28 July 2005 was an unusual number for Brier Island, Freeport Cove, just across Grand Passage, has much larger numbers, suggesting that dowitcher habitat is not ideal on the island. Two *L. g. hendersoni*, a subspecies from central and western Canada, were photographed during a whale tour off the island on 11 July 1987 (RBS), and others were noted in Pond Cove on 16 July 1994 (IAM) and 25 June 2005; careful examination of early fall migrants will undoubtedly turn up more. A specimen from 9 September 1967 (Chester Lent) is in the ROM.

Long-billed Dowitcher / Bécasseau à long bec *Limnodromus scolopaceus* (P)

Only five records, all in Pond Cove: one in the period 10-12 October 1975 (BMT); one heard on 4 September 1999 (FLL); an immature on 30 September 2002 (photographed); two or three

immatures present from 5-13 November 2005 (photographed); an immature (call heard, AHM) on 17-18 November 2005; and one photographed 25-29 September 2014 (Rick Whitman *et al.*).

Wilson's Snipe / Bécassine des marais *Gallinago delicata*

Unexpectedly, because of the extent of seemingly suitable habitat, Wilson's Snipe apparently does not breed on the island, although individuals were present not far from the eastern margin of the Big Meadow Bog during a survey in June 2015 (*fide* John Brazner). However, it is a regular migrant, occasionally staying well into cold weather in unfrozen locations. Spring migrants have been recorded as early as 13 March, but it is harder to account for birds passing through the island in the last few days of May (nine records), except perhaps as failed breeders from somewhere else. The first migrants, probably from nearby, appear in the last week of July and migrants pass through from then on, but particularly in September until early November. Individuals on CBCs on 18 December 2001 and 16 December 2020 were not surprising considering the regular occurrence of the species on the mainland well into winter.

American Woodcock / Bécasse d'Amérique *Scolopax minor* (P)

Arriving undocumented most years sometime between late March (earliest 9 March 2016) and mid April (WL recorded 16 "just arrived" on 6 April 1970), and staying at least through November, Woodcock are relatively common residents, breeders and migrants on the island. WL's notes record that numbers were shot between early October and mid November during the 1970s. One over-wintered during the winter of 1964-1965 (WL; Tufts 1986, p. 189), and others were found during the CBCs of 29 December 1967, 23 December 1975, and 23 December 1997. A female with four downy young was found along the Camp Road on 1 May 2009 (AHM).

Spotted Sandpiper/ Chevalier grivelé *Actitis macularius* (CMN; P)

A spring and fall migrant; breeds in low numbers. The peak of spring migration appears to be from about 20 May into the first week of June. WL reported an arriving bird on 12 May 1969. Post-breeders from nearby appear in mid July, and there is evidence of fall migration from the middle of August through most of September. One on 23 October 2013 was unusually late. Breeding occurs mainly in the Pond Cove area, probably annually, although the first documented breeding was the observation of chicks near Western Light on 2 August 1965.

Solitary Sandpiper / Chevalier solitaire *Tringa solitaria* (NSM; P)

First documented on 28 September 1959 (WL). A sparse spring migrant during the last three weeks of May and a regular although seldom abundant fall migrant between mid August and late September (earliest 16 July). There are records of 35 on 15 September 1967, a year in which the last was seen 14 October, and of 31 between 30 August and 7 September 1970 (last reported 7 October). Most presumably are attributable to the eastern *T. s. solitaria*, but to date no attempt has been made to look for the more northwesterly-breeding *T. s. cinnamomea*.

Willet / Chevalier semipalmé *Tringa semipalmata* (P)

Although Willets breed abundantly around the shores of mainland southwestern Nova Scotia, they do not breed on Brier Island, occurring there only as migrants and occasional visitors. In spring, low numbers show up in Pond Cove or on the Westport waterfront from the last day or two of April through May (an immature there on 10 June 2011 was unusually late). Because the May-June occurrences are later than the arrival of mainland breeders, it is likely that these birds are unmated or without territories, rather than being late migrants. During the last two weeks of July and the first two weeks of August, flocks of Willets arrive and sometimes stay on the island for a few days, especially in Pond Cove. These almost certainly represent the migration of Eastern Willets *C. s. semipalmata*, most of which leave northeastern North America early. Later records may represent the Western Willet, *C. s. inornata*, probably a separate species, which recently has been recognized as the most common Willet in northeastern North America after mid August – but most of our data do not allow us to attribute records to either (sub)species. Although most Willets have left the island by 10 September, we have more than 50 records from mid-August until mid November that may well be of Western Willet, including a record of five on 4 September 1997 that were identified as such (IAM; 1998. Nova Scotia Birds 40(1): 45, 47), also credible reports from 11 May 2013 and 29 May 2017.

Greater Yellowlegs / Grand Chevalier *Tringa melanoleuca* (AU; P)

An abundant migrant, especially in late summer and fall. Spring migrants pass through in low numbers during the last three weeks of May (occasionally in late April) and into the first week of June,

later than on the mainland. Post-breeding dispersal, probably from nesting areas in Nova Scotia and New Brunswick, begins during the last ten days of July and merges with fall migration, peaking between the last week of August and mid October. Double-digit numbers may occur during the first half of August. Late migrants continue to occur through the middle of November (an exceptional record, 1 December 1994). One, now in AU, was collected on 23 September 1964 (WL).

Lesser Yellowlegs / Petit Chevalier *Tringa flavipes* (P)

A sparse spring migrant, the earliest 28 April, the latest 2 June, but an early and abundant migrant in summer and fall. The first southward-bound individuals of this taiga-breeding species reach the island during the first week of July, peaking a month later. Records after September are few, but some late migrants continue to appear into mid October.

PHALAROPES

Wilson's Phalarope / Phalarope de Wilson *Phalaropus tricolor*

Although a fairly frequent vagrant on the mainland, Wilson's Phalarope has been reported only occasionally on Brier Island. Apparently the first was one seen at sea near the ledges to the northwest of the island on 7 October 1972 (WL). Thereafter, all the records but two come from Pond Cove: immatures on 27 August 1976; 24 August 1991; 28 August 1993; 16 September 1993 (Francis Spalding); 1 September 1996; 24-26 August 1999 (LAL); and 14 August 2003. One was reported off the island during a pelagic trip on 31 August 1997 and another offshore on 20 September 2009 (no documentation).

Red-necked Phalarope / Phalarope à bec étroit *Phalaropus lobatus* (AU; P)

Often common offshore along the ledges to the west of the island, sometimes in spring (earliest during the last week of April, more commonly in mid to late May) and often in July through September (earliest 26 June, latest 1 October). In fall, this species often reaches a peak of abundance before Red Phalarope and also leaves before that species. Mixed flocks of phalaropes are often seen in flight far off the island in late summer, appearing like smoke in the sky, and certainly numbering in the multiple thousands (for example,

an estimate of 100,000+, probably of both species, during a NSBS pelagic trip on 31 July 1993). Estimates by seabird biologists indicate that more than 100,000 birds of both species (Red-necked and Red) have gathered in the lower Bay of Fundy near Grand Manan and Brier Islands annually in late summer (Hunnewell *et al.* 2016), although numbers have dropped during the past decade. Occasionally a few may appear inshore, especially in Pond Cove. Four specimens, now in AU were taken on 25 May 1974 (WL).

Both species, which feed mainly in convergence rows along the offshore ledges (Fig 19), are highly dependent on their food source, largely calanoid copepods of various sizes (Mercier 1985, Mercier & Gaskin 1985), so variation in the abundance of their food greatly affects the numbers seen at and off the island. Spring observations are relatively few (due to lack of observers), but sometimes numbers can be considerable – for example, 200-500 in Grand Passage near the ferry docks from 23-25 May 1969. By the first week of June most birds have moved north, and the southward migration is usually detected in the first week of July (first southbound migrants at Grand Manan on 27 June 2014 – *fide* Laurie Murison); by the third week there may be hundreds to thousands along the ledges. By the end of September careful observation reveals only a handful among hundreds of Red Phalaropes. The pelagic biology of this species and the Red Phalarope is described by Brown & Gaskin (1986), and their status in the province as a whole in comparison to New Brunswick, is discussed in Tufts (1986, pp. 194-195). More recent information, based on aerial surveys is given by Hunnewell *et al.* (2016). Research with geolocators has shown that at least some Scottish-breeding individuals reach the Bay of Fundy en route to a wintering area along the equator off Ecuador and Peru (Smith *et al.* 2014).

After the work of Brown and Gaskin more than 35 years ago, the pelagic ecology of this species and of the Red Phalarope was studied systematically between 2003 and 2012, including radio-tracking of individuals since 2008 and aerial surveys in 2009 and 2010. Part of the rational of this work was the observation that numbers of migrating Red-necked Phalaropes decreased drastically in fall in a traditional staging area near Deer Island, NB, beginning in the 1980s, and the possibility, not borne out by surveys since then, that the birds had shifted across the Bay of Fundy to the Brier

Fig 19 A mixed flock of phalaropes along the Northwest Ledge on 31 July 2010. Most in this picture are Red-necked Phalaropes, but Reds can be picked out by their slightly larger size, bulkier mostly grayer appearance, and stouter bills. Photo: Richard Stern.

Island area (Duncan 1996; Moore 2008; Hunnewell *et al.* 2016). It is known from radio-tracking of individuals that they may move across the Bay daily, but the reason for the decline of Red necked Phalaropes, not seen to the same extent in the Red Phalarope population in the Bay, is still unknown. It is likely based on changes in the availability of their food items (information on studies of phalarope biology, Robin Hunnewell and Tony Diamond, University of New Brunswick).

Red Phalarope / Phalarope à bec large *Phalaropus fulicarius* (AU; P)

Common offshore, primarily along the ledges west of the island, especially late in the summer and through September. Spring observations are scarce (a few in last week of April 1988 and one on 24 April 2015 and 2021), although Red Phalaropes appear to have the same migration timing then as Red-necked Phalaropes. Occasional in early July in fall migration, numbers build from late that month through August (an exceptional minimum number of 40,000+ northwest of the island on 4 August 2016) and peak in September: 10,000 estimated on 8 September 1984 along the Northwest Ledge, 50,000 on 8 September 2005, 10,000 flying SW on 3 September 2007, 10,000 to 15,000 on 30 September 2007, 10,000 passing Northern Point on 3 September 2011, 13,500 along the Northwest Ledge on 9 September 2020. Significant numbers may be present quite late, for example, IAM estimated 1500 off

Northern Point on 7 November 1973. For a discussion of the status of this species in the Maritimes region, see Tufts (1986, pp. 195-196) and on its biology, along with that of the Red-necked Phalarope, see Brown & Gaskin (1986) as well as the discussion above under Red-necked Phalarope, especially the analysis by Hunnewell *et al.* (2016). Specimens in AU were taken 28 October 1966 and 14 November 1970 (WL).

SKUAS AND JAEGERS

Great Skua / Grand Labbe *Stercorarius skua* (P)

Early records of skuas are problematic because the presence of South Polar Skuas in Nova Scotian waters was not recognized until 1985. Since then, nearly all the identifiable and adequately documented skuas in Brier Island waters in summer and early fall have proved to be South Polars. Only a few records apparently or certainly pertain to Great Skua: one on 13 July 1986 described as being "rufous" (RBS); another seen during the Christmas count of 17 December 1992 (BLM, Joan Waldron); one just off Western Light on 16 September 2000 (Angus MacLean); one on 7 October 2001 well described in field notes (FLL); two on an unspecified date in December 2001 (CAH); one described as having rufous tones during a whale-watching cruise on 5 September 2010 (Larry Neily, Wayne Neily); one adult photographed on 2 September 2014 (Kevin Lantz); one described in field notes during a whale cruise on 15 September 2015 (Nic Fieldsend); one described as "cinnamon coloured" on 11 September 2017 (Tony Millard); one described as "brown/cinnamon" on 23 September 2017; and an individual passing Northern Point on 3 September 2018 that had noticeably "warm coloration all over" compared to other skuas seen in the area the day before that were all dark.

South Polar Skua / Labbe de McCormick *Stercorarius maccormicki* (P)

Since 1970, the large majority of skuas reported a few times a season from July (earliest 25 June) through September (latest 30 September) by birders on seabird- and whale-watching cruises have proved, when adequately documented, to be South Polars. Most are dark, immature birds (Fig 20), lacking the warm tones characteristic of Great Skuas. Late fall observations are nearly

Fig 20 A South Polar Skua just off Brier Island on 13 August 2008. Note the uniform, unstreaked and non-rufous coloration typical of most birds seen off the island. Photo: June Farnsworth.

lacking, but they are needed to provide information on the transition in early winter to the much rarer Great Skua. The possibility that Brown Skua, *Stercorarius antarctica*, occurs in Nova Scotian waters should be kept in mind, especially in summer (see McLaren & Lucas 2004), although identifying one would be challenging.

Pomarine Jaeger / Labbe pomarin *Stercorarius pomarinus* (P)

Harrison *et al.* (2021) have shown that at least some Pomarine Jaegers from the central Canadian Arctic migrate to the Pacific after breeding, and Parasitic Jaegers go to the western Atlantic. Despite this, Pomarine is the most commonly seen jaeger off Brier Island, often accompanying flocks of Kittiwakes or other gulls. Spring records are few (May and June), but in fall this jaeger is seen regularly from August into November (earliest 17 July), and increasingly into early winter, the latest being a report from 4 January 2020. There are eight records from CBCs: 19 December 2000 (BLM); 22 December 2002; 14 December 2006 (BLM); 15 December 2009; 14 December 2010 (RBS); 16 December 2011; 14 December 2016 (Dominic Cormier, Jake Walker); and a remarkable 26 following Kittiwake flocks on 14 December 2020 (Jake Walker, Phil Taylor). An immature bird was taken off the island in November 1900 (Tufts 1986, p. 196); according to Tufts 1973, p. 224, it was "taken in the Bay of Fundy, off Westport, Digby County by D.R. Munro, in November 1900...This specimen may be seen (1970) in the collection of mounted birds at the Wolfville High School", but it cannot be located now.

Parasitic Jaeger / Labbe parasite *Stercorarius parasiticus* (S)

A migrant past the island in May and late July (earliest 5 July) through October, occasionally into November (11 November 2001, 9 November 2002, 7 November 2009), frequently accompanying terns early in the season. Five specimens, probably now in the Museum of Vertebrate Zoology, University of California at Berkeley, were taken off Brier Island by the British Columbia ornithologist Allan Brooks on 28 September 1930 (Tufts 1986, p. 197). This species was probably seen more often when terns nested on Peters Island, harassing feeding migrants in fall just north of Brier Island.

Long-tailed Jaeger / Labbe à longue queue *Stercorarius longicaudus* (P)

Five records of this scarce offshore species: off the island on 10 November 1980 (Tufts 1986, p. 199); during a whale cruise on 21 August 1992 (CAH); 7 September 2014 (an immature photographed by Bruce Stevens); a light-morph immature overhead at Northern Point on 31 August 2020, well described (Jake Walker); and one adult photographed (by Mark Dennis) as it harassed phalaropes on the Northwest Ledge, 9 September 2020. This highly pelagic jaeger usually stays well offshore, en route to wintering grounds in the eastern South Atlantic and Indian Ocean (Harrison *et al.* 2021).

AUKS, MURRES AND PUFFINS

Dovekie / Mergule nain *Alle alle* (KU; P)

Regular in winter, especially during westerly gales, beginning during the first week of November but usually noted at the end of that month. Numbers can be quite large, for example, 500 during CBCs on 31 December 1966 and 20 December 1973, 1000 among Kittiwakes on 4 December 2000, 500+ off Northern Point on 30 November 2003, and 3346 counted during the CBC on 14 December 2006 (BLM). During the early winter of 1963-1964, WL noted "hundreds every day ... the heaviest concentration was around December 1" (1964. Nova Scotia Bird Society Newsletter 6 (1): 6-7). As Guris and Veit (2011) noted, off the mid-Atlantic States, Dovekies concentrate offshore in waters at or above 7.2-7.8°C, so our winter inshore records probably represent a small fraction of

the birds found offshore, where feeding is better in warmer waters beyond the shelf break. Summer records are rare: one in Pond Cove on 18 September 1991 (Gordon Tufts); one on 20 August 1997; a pair off the island on 16 July 2003 (CAH); four on 16 August 2004 (CAH); and up to three near the ledges from 15-18 July 2009 (BLM, Penny Graham) and again in July 2010 (Penny Graham). N.S. Goss collected one that was likely near Brier Island (locality given as "Bay of Fundy") on 14 March 1880, when he was based on the island.

Common Murre / Guillemot marmette *Uria aalge* (P)

Regular in small numbers among other alcids in winter, usually beginning in December, although some summers (especially in August-September, when adults are leaving the breeding colonies such as Machias Seal Island, NB, but also in late June and July) this species can be regular, although not abundant, among other seabirds offshore. Of about 60 reports on eBird since 2011, 28 were of observations during summer months and involved only one or two individuals on each occasion. CBC numbers range from 1 to 55, thus this species is significantly less abundant than Thick-billed Murre.

Thick-billed Murre / Guillemot de Brünnich *Uria lomvia* (AU)

Frequently common offshore, especially during gales, from the first week of November into April. Large numbers have been recorded during some CBCs, for example, 20,000+ on 20 December 1973, although numbers in the low hundreds are more usual. One in Lighthouse Cove on 21 April 2007, four off the island on 29 April 1972, three off Southern Point on 29 April 2017 (Greg Stroud), another off Northern Point on 27 May 1971, one among Razorbills and Common Murres on 14 May 2015, and an undocumented individual on 2 June 2015 were late. An over-summering individual was photographed during a whale cruise on 30 July 2015 (Mark Dennis). A specimen was taken on 3 November 1964 (WL).

Razorbill / Petit Pingouin *Alca torda* (KU; P)

Large numbers of Razorbills winter in the Bay of Fundy near Grand Manan, and some nest on Machias Seal Island, NB, so the presence of this species practically year-round is not unexpected. Occasional individuals or small groups are seen during whale-watching trips in summer and fall, and numbers during winter can be impressive, for example, 8600 counted off Northern Point during a CBC, 19 December 2000 (Brian Dalzell). N.S. Goss collected a

pair somewhere near the island (in the "Bay of Fundy") on 15 June 1880.

Black Guillemot / Guillemot à miroir *Cepphus grylle* (AU, KU; P)

A common year-round resident and breeder. Juveniles from local nests appear around the island in the middle of August. In late October into mid-November numbers drop, marking the departure of local birds; they are replaced by birds from farther north (likely Newfoundland, Labrador and the Eastern Arctic) from mid November until some time in April. N.S. Goss took three in March and April 1880, and specimens in AU date from 7 May 1967 (WL), 25 July 1970 and February 1972 (CC).

Atlantic Puffin / Macareux moine *Fratercula arctica* (KU; P)

Observed almost year-round, especially offshore and along the ledges, although the bulk of reports come from June-October, the whale-watching season. Birds seen in summer and early fall during whale-watching trips very likely come from the breeding colony on Machias Seal Island, NB. Occasionally numbers may be considerable, for example about 75 along the Northwest Ledge on 17 August 1980, 200 (mostly off Northern Point) during the CBC on 18 December 1990, 100 during a whale tour on 25 September 1999 (BLM), counts of 200-300+ during surveys in September 2002 (2003. Nova Scotia Birds 45 (1): 23), "hundreds" reported by CAH off the island on 31 May 2008, and more than 200 north of the island on 27 September 2010. Two taken on 14-15 June 1880, by N.S. Goss when he was visiting Brier Island and Digby, were likely at sea near the island.

GULLS, TERNS AND SKIMMERS

Black-legged Kittiwake / Mouette tridactyle *Rissa tridactyla* (AU; P)

Abundant offshore in fall, winter and spring, and occasional in summer. A few make their way into Grand Passage in most seasons, and late in August there is often a gathering of a few non-breeding or post-breeding birds in a big eddy at the northern entrance to the Passage. In autumn, usually beginning in October, hundreds may pass the island during northwesterly gales accompanied by Great Shearwaters and other pelagic species. The nearest breeding

colonies are on the South Shore of Nova Scotia, and in the past Kittiwakes nested on The Wolves, NB, north of Grand Manan. Some summering birds may have come from the latter. A group of 25 immatures on Gull Rock on 19 June 2009 was a surprise and might presage a breeding attempt in the future. Numbers in fall and winter can be impressive, for example, 5000 on 2 December 1979 (SIT *et al.*), 10,000+ off Western Light on 1 October 1997 (RBS), and from Christmas counts, more than 25,000 on 16 December 1974, 48,000 on 27 December 1978, more than 15,000 on 14 December 2006 and more than 24,000 on 14 December 2012. Most of these are likely to be birds from colonies in Newfoundland and Labrador (perhaps even the Eastern Arctic) wintering in the Bay of Fundy and Gulf of Maine. A specimen was taken on 11 October 1968 (WL).

Sabine's Gull / Mouette de Sabine *Xema sabini* (P)

Six records, all but one undocumented. The first was apparently a second-year bird on the island from 4-7 June 1981 (WL, Robbie Denton). The only other reports of this highly pelagic, Arctic-breeding small gull are an immature on 7 July 1982 (Ian Kirkham), one on a whale tour on 10 September 1997 (CAH, Don McNeill, photographed; 1998. Nova Scotia Birds 40 (1): 20), an immature reported off Northern Light on 1 October 1997 (Angus MacLean; 1998. Nova Scotia Birds 40 (2): 20), one reported without details on 28 September 2001, and another on 10 September 2021 (Ray Wershler).

Bonaparte's Gull / Mouette de Bonaparte *Chroicocephalus philadelphia* (AU, CMN, NSM; P)

Regular in low numbers around the island in spring (March-May, occasionally into June) and from mid July into winter. One in Pond Cove on 27 June 2015 and a pair of adults in Westport on 6 July 2003 was unusually early (or late). A flock of 54 reported from the north entrance of Grand Passage on 25 September 2005 was unusually large. One was in Pond Cove during the CBC of 14 December 2016. Two males, now in AU, were taken on 16 September 1962; there is another specimen there from October 1965 (WL).

Black-headed Gull / Mouette rieuse *Chroicocephalus ridibundus* (AU; NSM)

A regularly occurring species in winter (increasingly year-round) for at least the past six decades on the South Shore of Nova Scotia,

especially in the Halifax area, along the Eastern Shore, and in industrial Cape Breton. But this species is infrequently reported from Brier Island or the Fundy region in general. The first was one taken in Westport on 14 February 1959 (WL), another on 14 December 1969, then one was seen on a CBC on 26 December 1960 (both by WL). Thereafter, the records include at least 16 individuals seen on about 14 occasions from October through April from 1970 through 2016, with the unusual exception of 2-3 July 1988 and an adult in Grand Passage on 27 July 2007 (RBS).

Franklin's Gull / Mouette de Franklin *Leucophaeus pipixcan*

Only two records, 13-14 May 1981 (WL) and late October 2005. Several Franklin's Gulls were seen on the mainland after Hurricane Wilma, which passed south of the province on 26 October 2005 (McLaren & Mills 2006), and CAH reported, with detailed notes, three birds that were apparently this species in Westport from ca. 26-30 October. Only Laughing Gulls could be found a few days later.

Laughing Gull / Mouette atricille *Leucophaeus atricilla* (AU; P)

First documented by the Lents on 5 September 1967, and a specimen was taken on 30 October 1968 (WL), Since then, Laughing Gull has been noted as a sparse but regular visitor to Brier Island in every season except the dead of winter. Perhaps it is surprising that this attractive gull is not more common, considering that the species breeds on Machias Seal Island, NB, and along the coast of Maine. Later records include at least nine in spring, summer and fall from 1984 through October 2010, as well as a pair that summered on Peters Island in 1984 (*fide* RBS). There were five first-year and second-year birds in Westport and Pea Jack Cove, 5 November 2005 (after Hurricane Wilma); a total of three immatures in Westport, 13-17 November 2005 (also Wilma birds – the total may have been much higher during the first half of November); an adult on the Westport shore, 1 July 2007; and an adult at the north end of Grand Passage, 10 August 2007. In the days following Hurricane Earl (4 September 2010), considerable numbers reached the island, being reported by whale-watchers (*fide* Shelley Lonergan) and on shore, where the peak count was 15 from 11-22 September (Colin Bradshaw). As late as the second week of October 2010, storm-driven strays, all immatures, were still drifting past the island in low numbers, remnants of thousands that reached Nova Scotia

during the hurricane. Between late 2010 and 2020 there have been at least 14 more records, the majority in September and October, but including one reported offshore by CAH during the CBC of 14 December 2015 and an adult that was in Pond Cove on 24 April 2021 (Ron and Sharron d'Entremont).

Common Gull / Goéland cendré *Larus canus*

Three records only, including an adult on 4 September 1997 (Shirley Cohrs *et al.*), an adult on 9 September 1998 (Angus MacLean), and an adult among a throng of gulls feeding in the intertidal of Pea Jack Cove on 13 December 2004. The September 1998 bird was described as having a "darker mantle than nearby Herring and Ring-billed Gulls", thus it may not have been the scarce but regular Common Gull, *L. canus* of Europe, but an individual of the western North American species Short-billed Gull, *L. brachyrhynchus*, so far unsubstantiated in Nova Scotia.

Ring-billed Gull / Goéland à bec cerclé *Larus delawarensis* (AU, NSM; P)

Early records from the island include three females taken on 20 February 1958, 21 September 1959, and 10 October 1959 (WL) at a time that this species was considered relatively rare in Nova Scotia. Since then, numbers have increased markedly everywhere, although it is still not a regular breeder in Nova Scotia, and on Brier Island it is a sparse spring visitor, mainly in April-May, and in increasing numbers from early August through December. Summer birds are frequent but not abundant, usually in July and early August. Late fall and winter birds are regular, especially among resting gulls on the Westport waterfront and among feeding flocks in Pond and Pea Jack Coves. Twenty-two on the CBC of 14 December 2005 may have included some birds displaced from the south by the late October Hurricane Wilma. There were 26 on the CBC of 14 December 2012, about 50 on the shore at Westport on 13 December 2013, and 40 in Pond Cove on 30 September 2014 not obviously related to storms.

Herring Gull / Goéland argenté *Larus argentatus* (KU; P)

The most abundant breeding gull of the island, ubiquitous on shores and at sea around it at all seasons. There are major colonies on Peters Island, in the Big Meadow Bog, and between Whipple Point and Western Light. The first eggs are laid about the third week of May and downy young appear away from the nests about 1 July.

Survivorship of young appears to have been low since fish wastes were no longer released from local fish plants, but there is nothing but anecdotal evidence – and for many years a host of starving juvenile gulls along the roads in late summer – to substantiate this. Recent studies have shown that Herring Gulls from Brier Island range widely to forage, some at least as far as mink farms on the mainland coast to the south, as well as using local coastal marine resources (Gutowsky *et al.* 2021; Schlepr *et al.* 2021), and that the deposition of guano by nesting gulls increases nitrogen, phosphorus and mercury levels in the colony soils (Kickbush *et al.* 2018). The main breeding area is the Big Meadow Bog, which has held a colony since the 1960s, as it changed from peat bog to relatively dry terrain after ditching for agriculture in 1958 (described by Hill *et al.* 2018). A survey of gull nesting took place in 2016 (Toms 2016), showing that the Big Meadow Bog held about 3200 Herring Gull nests, the west side of the island from Western Light to Whipple Point just under 900 and Peters Island nearly 800. Restoration of the bog by changing its drainage took place between 2016 and 2018 (East Coast Aquatics 2018) to promote the growth of the endangered Eastern Mountain Avens, *Geum peckii,* likely resulting in much less favourable habitat for gull nesting. As of 2021, it appears that nesting in the Big Meadow Bog is decreasing, and that recruitment from that area is declining, but the evidence is largely anecdotal and quality or availability of food cannot be separated from changes in nesting habitat. The population in at least one group of colonies, between Whipple Point and Western Light, has declined in numbers during the last decade (noticeably especially in 2021), and nesting now occurs closer to the shore (even on the edges of cliffs) than it did earlier. The reason for this is unknown, but it is probably due to predation by coyotes or Great Horned Owls, or possibly due to decreased spillover of breeding birds from the Big Meadow colony. Overwintering birds (mainly adults and second- and third-year birds) are abundant, but there is no evidence if most of the wintering birds are local or from elsewhere. N.S. Goss took a small series of specimens from April into May 1880.

Iceland Gull / Goéland arctique *Larus glaucoides* (NSM)

Regular in low but increasing numbers in winter, especially at sea, off Northern Point, and feeding among other gulls in Pea Jack and Pond Coves. Specimens in the NSM date from January 1959

and February 1962 (WL). The earliest in fall usually appear in mid November, while the latest in spring are occasional into the last week of May. During a gale, 153 were recorded, mainly at Northern Point, on the CBC of 16 December 2011. Immatures in Pond Cove on 3 July and on 29 August 1971 were exceptional. Virtually all the birds recorded are attributable to *L. g. kumlieni*, Kumlien's Gull, a taxon now widely regarded as originating from hybridization, mainly in the Eastern Arctic, between Thayers's Gull, *Larus glaucoides thayeri*, and the nominate Iceland Gull, *L. g. glaucoides* (Weir *et al.* 2000), which is largely restricted to Greenland and northern Europe. One first-winter bird, attributable to *L. g. thayeri*, documented in field notes, was among gulls feeding in the intertidal of Pea Jack Cove on 14 December 2004 (ELM). An adult bird, paler-mantled than the accompanying Kumlien's and with unmarked wingtips, in Pea Jack Cove on 17 November 2005 probably was a bird of the nominate subspecies *Larus glaucoides glaucoides*, largely restricted to Greenland and northern Europe.

Glaucous Gull / Goéland bourgmestre *Larus hyperboreus* (NSM)

Regular but scarce in winter, the earliest 11 November, the latest usually in February-March (late reports: one on 12 May 1979 by BMT; one on 14 May 2011; and one photographed on 18 May 2020). Observations in late winter undoubtedly would turn up more. Glaucous Gulls are always less abundant than Icelands, seldom lingering around the island. There is one specimen, from 8 February 1962 (WL).

Lesser Black-backed Gull / Goéland brun *Larus fuscus* (P)

Scarce and irregular until recent years, mainly in fall and winter, but since 2014 a regular migrant, especially in early fall. So far, all but one has been of the Western European/Icelandic race *L. f. graellsii*. Now a regular breeder in West Greenland and increasing as a migrant to and from new wintering areas in the southeastern USA, Lesser Black-backed Gulls are being seen frequently throughout the Atlantic Provinces (Boertmann & Frederiksen 2016; Zawadski *et al.* 2021). The early Brier Island records include one on 14 October 1973 (WL); one seen but undocumented, early October 1999 (NSBS); an adult, 28 September 2002, in Westport; a third-year bird on 1 October 2005 (FLL); an adult in Pea Jack Cove, 17 November 2005; an immature and an adult in Pea Jack Cove, 30 October 2006; a second-year bird off

Northern Point on 3 November 2006; an adult in Pond Cove on 2 September 2009 (Ron Arseneault – photographed); Between 11 and 22 September 2010, perhaps as a result of Hurricane Earl, three adults and a third-year bird were seen in the Pond Cove area (Colin Bradshaw). A first-winter bird was among sheltering gulls in the same area on 8 October, and another adult was nearby on 10 October 2010 (ELM; Ken McKenna *et al.*). Spring records are sparse, but there were two adults in Westport on 18 April 2017. Since 2012, there have been at least 35 more reports of 1-12 individuals, mainly in August and September. An adult referable to the northwestern European *L. f. intermedius*, having a very dark mantle almost concolorous with the wing tips, was in Pea Jack Cove among feeding Herring Gulls and Great Black-backs on 30 October 2010 (ELM).

Great Black-backed Gull / Goéland marin *Larus marinus* (MCZ, KU; P)

A common breeder in low numbers and year-round resident. Nests among the Herring Gulls, but in lower numbers, for example, 5-25 pairs among about 900 pairs of Herring Gulls between Whipple Point and the Western Light (personal surveys; see also Toms 2016). The number of Black-back nests is lower, according to Toms' (2016) survey, in the Big Meadow colony (3) and highest on Peters Island (86). Among resting gulls outside the breeding season, Great Black-backs seldom make up more than 10% of the total, with Herrings predominant. Numbers may peak at up to 500 around the island at the end of September. This is the dominant gull offshore during the winter, most often seen during sea-watches in the colder months. N.S. Goss took a specimen on 13 April 1880, and two were taken on 1 November 1891 by or for the New England collector W.S. Bryant.

Least Tern / Petite Sterne *Sternula antillarum* (P)

Three records. The first was an undocumented individual in Pond Cove, 9 May 1990 (Ronnie and Robbie Denton), the mext one on a buoy in Grand Passage on 11 August 2011 (Frédéric Hareau). An adult was photographed in Pond Cove after Hurricane Irene on 29 August 2011 (LAL *et al.*).

Black Tern / Guifette noir *Chlidonias niger* (AU, NSM)

A scarce migrant in spring and fall, probably seen less frequently now than in the past when a tern colony on Peters Island acted as

a magnet for non-breeding species. First recorded and a specimen taken on 12 June 1958 (WL). One very late individual was collected from a group of two on 14 December 1966 (WL) (according to Tufts 1986, p. 222, this date was 26 December although eBird records it as 28 December). One was reported on 31 August 1967 (Eric Cooke), one accompanied a flock of Arctic Terns into Grand Passage on 21 May 1979, and one summered on Peters Island in 1984 (fide RBS). The sparse fall records are nearly all in the first week of September.

Common Tern / Sterne pierregarin *Sterna hirundo* (AU; P)

Formerly a common breeder (150-300 pairs) on Peters Island with Arctic Terns. But since 2001, when the colony gave way to gulls (a process that began 10 years earlier – see Amey 1991 and 1992. Nova Scotia Birds 34 (1): 20), now a scarce summer and fall migrant from other colonies. Most fall records of birds in passage end in the first week of September, but the occasional bird passes by the island into the last week of the month and offshore a few continue to pass the island through the first week or two of October. Breeding birds usually arrived during the last ten days of May, occasionally earlier (for example, 8 May 1970 and 10 May 1969, WL). The status of the colony as it existed for many years is described by Kirkham (1983), Stern (1988), Lock (1989, 1991), Amey 1991, and Gregoire (1994, 1995). D.M Scott (1959) passed by Peters Island on a fisheries research vessel in mid August 1957, but although he reported birds from along the whole cruise track, he did not note any terns between Freeport and St. Mary's Bay, suggesting that the colony did not exist then. When the colony was in existence a few birds could be found around the island through August, so it is likely that the colony was established after 1957; Lock (1991) suggests that it dated from about 1971. A specimen was taken in September 1971.

Arctic Tern / Sterne arctique *Sterna paradisaea* (P)

Like Common Tern, formerly a common breeder (perhaps occasionally up to 200 pairs) on Peters Island (see the discussion of Common Tern). Now a scarce migrant, mainly in May (earliest 17 May 1973) and late summer (latest date 25 September; RBS).

Forster's Tern / Sterne de Forster *Sterna forsteri*

Only one record, off the island during a whale tour on 9 September 1988 (FLL, George Cull).

Roseate Tern / Sterne de Dougall *Sterna dougallii*

Once an occasional breeder in very low numbers (probably no more than two pairs) on Peters Island in the colony of Arctic and Common Terns that existed there until about 2001. One lingered around the island on 20 August 1980, and one was with Common Terns attempting to re-establish a colony there on 31 May 2005.

Sandwich Tern / Sterne caugek *Thalasseus sandvicensis* (P)

One record only: Nova Scotia's first, an adult in basic plumage, spent some time in Pond Cove after Hurricane Bob, on 20 August 1991, and was photographed there (IAM, ELM).

Royal Tern / Sterne royale *Thalasseus maximus* (NSM; P)

Royal Terns in Nova Scotia are usually (although not always) storm-driven, particularly by hurricanes. There are four records for the island, all after storms. The first was taken after Hurricane Helene on 1 October 1958 (now in the NSM; WL). Thereafter, another was taken on 13 September 1960 after Hurricane Donna (WL), and there were two (an immature in Westport and an adult passing Pond Cove) after Hurricane Bob, 20 August 1991 (ELM, IAM; Fig 21).

Caspian Tern / Sterne caspienne *Hydroprogne caspia* (P)

More than thirty records, all but one in fall, although, as in much of the province, Caspian Terns probably pass by regularly in low numbers in spring and fall during passage to and from their breeding areas in the Gulf of St. Lawrence and Newfoundland. Between 1986 and 2007, about 25 individuals were reported between

Fig 21 A storm-driven Royal Tern on a shed roof in Westport on 20 August 1991, following Hurricane Bob. Photo: Ian McLaren.

early September and the third week of October. An exceptionally late bird on 20 November 2005 was photographed (CAH, JUF), and there is another photograph from 10 October 2002 (AHM; 2003. Nova Scotia Birds 45 (1): 23). On 27 April 2011 one spent the day along the Westport waterfront (CAH). Since then, there have been reports on at least 17 occasions, including a group of four in Pond Cove on 23 September 2016 (Rick Whitman), two in the same place on 11 September 2017 (Tony Millard), one at Western Light on 19 October 2018 (Jake Walker) and two there on 11 September 2021.

Black Skimmer / Bec-en-ciseaux noir *Rynchops niger*
(AU, CMN; P)

Only six occurrences, the first represented by three specimens taken 30 October 1968 after Hurricane Gladys, which brought large numbers of Skimmers to Nova Scotia (Mills 1969). Another, apparently related to Hurricane Wilma, which affected the area during the last few days of October, was found by CAH in Pond Cove on 2 November 2005. On 17 September 2010 three were seen in Pond Cove two weeks after Hurricane Earl transported large numbers of southern species to Nova Scotia (James Hirtle); on 30 October, three immatures appeared and rested on the Westport shore for a few hours (Fig 22), no doubt also lingering returnees from Earl. A single bird was reported after Hurricane Arthur, 5 July 2014 (Jeanette Denton and George Garron), and up to 4, 22-27 September 2019, probably resulted from Hurricane Dorian on 7 September.

Fig 22 Three immature Black Skimmers that spent the afternoon of 30 October 2010 on the Westport shore. These were probably very late returnees from many skimmers displaced by Hurricane Earl on 4 September that year. Herring Gull in the background. Photo: Eric Mills.

TROPICBIRDS

White-tailed Tropicbird / Phaéton à bec jaune *Phaethon lepturus* (AU, NSM)

Five records: storm-driven birds in August 1957, August and September 1959, around 7 October 1962 (after Hurricane Daisy, a specimen sent to NSM), and August 1963. One, undated, is in the Acadia University collection (WL).

LOONS

Red-throated Loon / Plongeon catmarin *Gavia stellata* (AU)

A regular migrant, usually in small numbers, from late April (earliest 9 April) through late May (latest 3 June) and from September (earliest 21 August) through November. Some linger into December, and a few may overwinter. Single birds seen on 26 August 1973 and 11 July 2001 were exceptional. A specimen taken by CC on 1 November 1969 is in the AU collection.

Pacific Loon / Plongeon du Pacifique *Gavia pacifica*

Two records. On 3 September 1984, ELM watched an adult in nearly complete breeding plumage among Common Eiders in Pond Cove. A winter-plumaged bird was described from observations during a CBC sea-watch on 14 December 2006 (BLM). There is evidence of a small spring and late autumn passage of Pacific Loons through the upper Bay of Fundy (Stewart *et al.* 2021), so it may be more frequent off Brier Island than our records indicate.

Common Loon / Plongeon huard *Gavia immer* (AU, ROM; P)

A very common migrant in spring and fall and a regular wintering species. Non-breeders are regular in summer. Peak numbers in spring occur from mid March to the middle of May, and in fall from mid September (when local breeders have moved to the ocean) to late December, peaking in the last half of November. CC took specimens, now in AU, on 20 August 1970 and in September 1971, and there are others from October 1972 in the ROM (WL).

SHEARWATERS AND PETRELS

Northern Fulmar / Fulmar boréal *Fulmarus glacialis* (AU, NSM; P)

Fulmars are common offshore from October through May but are infrequently seen from land except during gales. Three hundred seen

from Northern Point on a CBC on 18 December 1990 and 200 on the CBC of 22 December 2002 were exceptional. Summering birds are not uncommon, especially when feeding is good along the ledges west and south of the island – notably 25-30 off the island on 20 May 1959 (WL; Tufts 1986, p. 39), 18, including a dark-phase bird, along the Northwest Ledge and Moore's Ledge on 6 July 1976, also up to 40 along the ledges in July and August 2011 and mid July 2015. The many eBird records annually between May and September during the past twenty years are a biased representation of the seasonal abundance of Fulmars because of the lack of observers in late fall and winter. Specimens were taken from somewhere near the island on 13 July 1950 (WL; in NSM), in May 1965, and on 15 February 1974 (WL).

Bulwer's Petrel / Pétrel de Bulwer *Bulweria bulwerii* [HYPOTHETICAL]

An all dark, long tailed petrel, described as being smaller than nearby Sooty Shearwaters, and depicted in a sketch, was seen by Thomas A. Smythe of Allegan, Michigan, during a whale tour on 23 June 1996 (1997. *Nova Scotia Birds* 39 (1): 6-7). Bulwer's Petrel, which has been confirmed off the Carolinas, mentioned in the hypothetical list for the province by Tufts (1986, p. 455) and by McLaren (2012, pp. 67-68), is a reasonable fit, although this would be an unusual species in such a cold-water area.

Cory's Shearwater / Puffin cendré *Calonectris diomedea* (P)

This warm-water species is scarce in the perpetually frigid outer Bay of Fundy; although these big shearwaters have built up during the past few years in late summer on the Scotian Shelf and there is evidently spillover into the outer Bay of Fundy as early as July, but mainly in August and September. There are several early sight records, one documented: 9 August 1990 (Ken Thorpe, 1991. *Nova Scotia Birds* 33(1): 8); 28 August 1991 (Chris Field, 1992. *Nova Scotia Birds* 34(1): 10); 18 July 2000 (CAH); during the last week of July 2002 (2002. *Nova Scotia Birds* 44(4): 15); and summer 2012 (Shelley Lonergan). Thereafter, there have been at least 12 more reports in mid to late summer, several with photographs, making it clear that Cory's Shearwater is now a regular part of the pelagic avifauna of the outer Bay of Fundy, albeit in low numbers.

Great Shearwater / Puffin majeur *Ardenna gravis* (P)

Common in favoured feeding areas such as the ledges near the island from early summer into November, peaking in August and September. Occasional individuals appear in May, but most arrive in July-August, and a few remain into December, for example 10 seen during the Christmas count of 22 December 2002 and 15 during the CBC on 14 December 2015 (CAH). During the summer thousands (in the 1970s tens of thousands) occur not far offshore, especially when krill and squid are abundant near the sea surface (Tufts 1986, p. 41; on feeding ecology of this species and the following one, see Brown *et al.* 1981). Since the 1990s these food sources seem to be less abundant and shearwater numbers have dropped off in summer, but the spectacle is still impressive, especially when larger whales (mainly Humpback, Fin and Right Whales) are present too, or during fall gales – for example, 10,000 estimated off Northern Point on 4 September 2007, an estimated 3000 there within an hour or so on 12 November 2011, more than 45,000 within two hours on 7 October 2012 and 8000+ on 26 August 2020.

Sooty Shearwater / Puffin fuligineux *Ardenna grisea* (P)

Sooty Shearwaters arrive a little before Greats, usually late in May, and are mostly gone by mid-October (latest 13 November, IAM). They are usually much less abundant than Greats, although during the summer of 2009 the order was dramatically reversed, perhaps due to food availability (see Brown *et al.* 1981, on food preferences). Two near the island on 26 April 1964 (WL) were unusually early. A group of hundreds moving along a fog bank on 7 July 1970, 150 on 4 September 1971, 200+ on 26 August 1976, 500 on 6 September 1990, 100+ in three hours on 4 September 2007, and 1000-1500 daily on whale tours during the last two weeks of August 2009, all close to the island, are among historical high counts.

Manx Shearwater / Puffin des Anglais *Puffinus puffinus* (P)

Since the 1970s this species has become a regular part of the pelagic avifauna off Nova Scotia, probably coinciding with breeding in the New World (certainly in Newfoundland, Maine and Massachusetts and almost certainly on St. Paul Island, NS). Since the first record near the island on 29 August 1971, Manx Shearwaters have been a component of the late summer pelagic avifauna just offshore along the Brier Island ledges, usually in low numbers

(1 to 10 per trip), although 50-75 on 4 September 1971, 35 on 11 September 1994, 100+ on 11 September 1994 (Angus MacLean) and 70 on 21 August 1999 (Ken McKenna) were exceptional. Spring records are few, but the species probably arrives off the island in very low numbers in early May (one seen off Gull Rock, 11 May 1997 by CAH). Most are gone after mid October (latest 6 November).

Balearic Shearwater / Puffin des Baléares *Puffinus mauretanicus* [HYPOTHETICAL]

During a seabird survey off the island on 1 September 1978, a Manx-like shearwater that was described as "rather large for a Manx, and had very brownish upperparts; perhaps the Balearic subspecies from the western Mediterranean" was seen by R.G.B. Brown among other shearwaters (1979. *Nova Scotia Birds* 21 (1): 7). As McLaren (2012, p. 69) has pointed out, this species (mentioned in his account of a possible Yelkouan Shearwater on Georges Bank), fairly recently separated from Manx Shearwater along with Yelkouan (Levantine) Shearwater by Sangster *et al.* 2002, ranges widely in the eastern North Atlantic but has not been recorded in North American waters. The report from the Brier Island area is certainly intriguing, although hardly definitive.

Audubon's Shearwater / Puffin d'Audubon *Puffinus lherminieri*

One, found in a flock of phalaropes during a whale tour north of the island on 9 August 1992, was documented in detailed field notes (Foxall 1993). Another, more distant, was reported west of the island on 13 September 1992 (Foxall 1993, p. 34; McLaren 2012, p. 69) and may not pertain to the avifauna of Brier Island.

STORM-PETRELS

Wilson's Storm-Petrel / Océanite de Wilson *Oceanites oceanicus* (P)

Regular with other pelagic species along the ledges and elsewhere, from May into October (latest 1 November), peaking in August. Numbers are usually low unless their favoured food, calanoid copepods, is unusually abundant, when hundreds may be present, for example: 50+ following fishing boats on 1 August 1975; 300 along a transect off Whipple Point on 25-26 August 1975; 200+ along the ledges on 26 August 1976; several hundred there on 30 August 1986;

an estimated 1000+ on 30 August 1998 (RBS); a reported 5000 in late June 1996; 1500 on 16 August 1999; and several hundred daily during whale tours in August 2009. "Thousands" were reported from whale tours in August 2010. Since then, the numbers reported have been lower, perhaps due to some change in feeding conditions off the island.

Leach's Storm-Petrel / Océanite cul-blanc *Oceanodroma leucorhoa*

Records of this species around Brier Island are relatively few, not because it is rare, but because birds from the nearby breeding colonies in the Grand Manan archipelago, on Machias Seal Island, and on some small Nova Scotian islands to the south, probably feed far offshore at the edge of the Slope Water (Linton 1980). Most birds seen around Brier Island are probably post-breeders and juveniles, mainly from late July through late October, the main whale-watching season, although there are reports from 18 June 2009 during a whale-watching cruise, and from late June 2012 and 2018, also from 1 November 2009 and 11 November 2019. More sea-watching would undoubtedly yield reports in April and late fall typical of other Nova Scotian coastal waters. Reports of birds "singing" at night along Gull Rock Road in August 1991, along with active burrows (Marion Zinck, *fide* RBS, cited in 1993. *Nova Scotia Birds* 35(1): 10), have not been verified or repeated in this actively birded area.

FRIGATEBIRDS

Magnificent Frigatebird / Frégate superbe *Fregatta magnificens* (P)

An adult female was photographed around whale tour boats about 6 km northwest of the island on 24 July 2010 (JUF, Jamie Swift, Fig 23), one of about four Frigatebirds reported from Nova Scotian waters during that summer.

GANNETS AND BOOBIES

Northern Gannet / Fou de Bassan *Morus bassanus* (AU; P)

The first migrant Gannets appear each year in early April (an adult, exceptionally early, 9 March 2012), peaking late that month and into May. A few, mainly immatures, linger as late as mid June and even throughout the summer. Numbers may be impressive, for example, 4000 in an hour off the island estimated by CAH on

Fig 23 One of the few frigatebirds documented from Nova Scotia, an adult female Magnificent Frigatebird that investigated several whale-tour boats just off the island on 24 July 2010. Photo June Farnsworth.

19 April 1993. At the end of August, dispersing immatures begin to appear from colonies in the Gulf of St Lawrence and Newfoundland and in September through mid October (even into early November) there is a fall passage which on some days involves hundreds, sometimes thousands, of birds. Significant numbers may linger into December (for example, 224 on the CBC, 21 December 1993 and 241 on the CBC of 14 December 2012), and a few may even spend the winter in the outer Bay of Fundy. One specimen record, 11 October 1968 (WL).

Brown Booby / *Sula leucogaster* (P)

One perched on the Northern Point marker buoy in Grand Passage, 4-5 August 2018, was photographed by Penny Graham from the Mariner Cruises whale tour boat. Probably the same bird was seen very close to the Brier Island shore in St. Mary's Bay off Oliver's Cove on 28 August 2018 accompanying feeding Great Shearwaters, Northern Gannets, and Herring Gulls (Joanna and Matt Skomorowski).

CORMORANTS

Great Cormorant / Grand Cormoran *Phalacrocorax carbo* (AU; P)

The late fall and winter cormorant of Brier Island, also a breeding summer resident in low numbers. The bulk of the wintering population arrives around the first week of November (some trickle in in late September-October) and departs by the end of April. A group of 40 that arrived on the island on 26 August 2011 was

exceptionally early and may have come from other Nova Scotian breeding colonies. Most years a few non-breeders oversummer on the island, and some years a pair or two may nest on Peters Island (for example, two breeding-plumaged adults in the Double-crest colony on Peters Island on 11 June 2015 and 6 July 2017, also two fledged young birds with an adult in the same place on 17 July 2020) or on the St Mary's Bay shore of Long Island and Digby Neck. Specimens taken by CC on 8 April 1966 are now in AU.

Double-crested Cormorant / Cormoran à aigrettes *Nannopterum auritum* (P)

A common summer resident from early to mid April through early November; breeds on Peters Island (where the first juveniles of the year were seen on 1 June 2018), Green Island, and probably Gull Rock. In 2021, the first Peters Island residents appeared around the island on 9 April and the following day were ashore on the nesting colony, which in 2017 had been estimated at 70 nests, *fide* John Paterson of Nova Scotia Nature Trust. The Peters Island colony began to enlarge in summer 2012, when the colony on the east side expanded to the west side of the island. One or two Double-crests are found most years into late December or longer, but in general this species is replaced by the more northern Great Cormorant from mid October through early November (Fig 24). Large numbers of migrants pass by the island, or linger on Peters Island, southward-bound, from the last week of August through October and increasing numbers are northward-bound from early April through mid-May.

Fig 24 Adult Double-crested (left) and Great Cormorants on 25 September 2004, a time when Double-crests are in southward migration. Great Cormorants are mainly winter residents, but a few nest on the island or nearby. Photo: Richard Stern.

A few late fall birds (usually immatures) are often present into winter in the big pond, Pond Cove, and around Peters Island.

PELICANS

Brown Pelican / Pélican brun *Pelecanus occidentalis*

By an accident of vagrancy and geography, the only Brown Pelican reported in the vicinity of Brier Island was seen from the island on 26 June 1982 as it perched on rocks on Dartmouth Point, Long Island, across Grand Passage (Robbie Denton, RBS).

HERONS AND BITTERNS

American Bittern / Butor d'Amérique *Botaurus lentiginosus* (P)

A scarce spring and fall migrant, usually during the last week of May and from late August through October. WL recorded one on 28 March 1970. Most have been seen in the Pond Cove area, but also in Westport and the Whipple Point area. A moribund bird was found by CAH on 2 February 1988.

Least Bittern / Petit Blongios *Ixobrychus exilis* (NSM; P)

The first was seen by the Lents on 17 May 1956. Later, one "found in weakened condition, died" (1963. *Nova Scotia Bird Society Newsletter* 5(3): 6) on 9 September 1963, was preserved as a specimen, although its location now is unknown. Another spent about two weeks in a small pond along Lighthouse Road. It was first found on 19 May 1999 by Charles MacDormand, seen by several other residents and birders, and photographed (1999. *Nova Scotia Birds* 41(3): 29).

Great Blue Heron / Grand Héron *Ardea herodias* (P)

Great Blue Herons are common on Brier Island, but only in the spring pre-breeding period and as post-breeders and immatures. Spring arrivals, although sparse, appear in the first week of April into May (one on 20 March 1972 was exceptionally early and two on 5 June 2021 exceptionally late), but few birds occur after early April until nesting is finished in the mainland colonies. Modest numbers of birds of the year arrive on the island beginning in the last day or two of July (earliest 6 July) to feed in the big pond at Pond Cove and along the Grand Passage shore from Southern Point to Northern Point. Most leave by the end of

October, although the observation of a small group leaving the island in a southwesterly direction on 13 November 2000 indicates that migration continues on quite late into the fall. A few birds, mainly immatures, may stay into early winter (for example, two in the Big Meadow Bog on the CBC of 14 December 2020). Most probably perish by January, but CAH saw one in Westport on 27 January 2017, and an observation of two surviving to 1 February 1959 (WL) is exceptional.

Cattle Egret / Héron garde-boeufs *Bubulcus ibis* (P)

About eleven records. The first appear to have been five (one collected, location of specimen unknown) that were first seen on 19 March 1972 (WL), followed by three from 19-21 May 1972 (DWF). Thereafter, between 1980 and 2005 about eight individals were reported from April (Fig 25) through June and in September of six years. During an influx of Cattle Egrets into Nova Scotia, one was present at the Lodge from 31 October to 1 November 2010 (Ray Tudor, CAH).

Snowy Egret / Aigrette neigeuse *Egretta thula* (AU, CMN, NSM; P)

At least 27 records, most ranging from early April to early August (Fig 26). WL recorded one on 29 March and another on 2 April 1970. There are only two records in fall, 10 and 15 October 1964. Most records are of single birds, but three spent 10-12 May 1979 on the island, and there were two in Pond Cove on 1 July 2006 (RBS). Specimens were taken in April 1961, spring 1964 (WL, NSM), April 1971 and May 1971 (WL, CC).

Fig 25 Cattle Egret in Westport, 9 April 2005. Present from 5-20 April, it spent a good deal of time around a small pool in a back yard. Photo: Hans Toom.

Fig 26 Adult Snowy Egret in Westport, 18 April 2008. Photo: June Farnsworth.

Great Egret / Grande Aigrette *Ardea alba* (P)

A scarce spring and summer vagrant, apparently first recorded on the island on 12 April 1964. An adult was at the head of Pond Cove, 13 April 1971, one was there on 30 March 2000 (CAH), one on 25 May 2004 (Liz & Shane Gidney), and another nearby on 20 May 2007 (Wayne Neily). There are also undocumented reports from 9 September 2008, 9 September 2013, and 28 September 2018. One foraged in grassy areas on Peters Island on 2 September 2016 (LAL, ELM). Between about 9 April and early July 2017 one, and then three for a time, were present in the big pond, Pond Cove. The paucity of records is surprising, considering how regular this species is as a spring vagrant on the mainland.

Tricolored Heron / Aigrette tricolor *Egretta tricolor* (AU; P)

Four records, the first a specimen taken 14 May 1978 by CC. An adult was present in Westport from 7 to ca. 21 April 2005 (CAH, ELM; photographed, Hans Toom), and one that arrived in Pond Cove with a Snowy Egret during the day on 2 May 2009 stayed through at least 20 May (AHM, ELM). One that arrived in Westport on 11 July 2016 was gone within a day.

Little Blue Heron / Aigrette bleue *Egretta caerulea* (AU, NSM; P)

The first documented from the island were taken 14 September 1965 (WL; in NSM) and 21 October 1968 (WL) and there are a few sight records, including three birds on 13 April 1969, one from 11-13 October 1969, one on 28-29 May 1971, one 1 May 1982, one from 4-6 September 1997 (IAM), an adult from 6-20 April 2005 (CAH; photographed, Hans Toom), an adult from 30 August-about 5 September 2009 (Fig 27), and another on 10 April 2011.

Fig 27 An adult Little Blue Heron that arrived on the afternoon of 30 August 2009 and spent nearly a week in the big pond at Pond Cove. Photo: Eric Mills.

An immature that arrived in late August 2016 stayed until at least 14 September, foraging occasionally in a grassy area on Peters Island. One was photographed in Westport on 27 April 2020 (Yvette Thompson). About 10 August 2020, five immatures arrived in the Big Meadow region, moving to the little pond, Pond Cove where they stayed until at least 14 August, and one was reported on 7 August 2021 (Greg Stroud). Little Blue Heron is a regular vagrant on the mainland, so the low number of records from Brier Island is surprising.

Green Heron / Héron vert *Butorides virescens* (AU, NSM)

Tufts (1986, p. 65) documents the arrival of several on the island on 15 April 1881. Specimens were taken then, on 26 August 1964 by WL (in NSM), and 2 June 1966. Since August 1964 (when our database begins), about 25 individuals have been seen, most of them between 23 April and June 8. Three adults in Westport on 26 July 1969 were noteworthy, and there are sight records of individuals in late September to early October 1978 and 10-11 October 2010.

Black-crowned Night-Heron / Bihoreau gris *Nycticorax nycticorax*

There is one early spring record, 6 April 1961 (WL). Our database and other records show sighting dates in mid to late April, late May, mid July, throughout August, and September, October and December. One on 30 October 2016 (CAH) was unusually late, and another at the Westport docks on 8 December 1998 was remarkably so (CAH). All the birds seen in summer and fall were immature, most likely dispersing from Cape Sable and Bon Portage Islands in southwestern Nova Scotia.

Yellow-crowned Night-Heron / Bihoreau violacé *Nyctanassa violacea* (P)

At least ten records of this species, which has become a regular summer overshoot or reverse migrant in Nova Scotia. First recorded as a very early spring overshoot, 6 April 1961 (WL); another spring individual was seen on 31 May 1986 (LAL). An adult (photographed) was in David Pugh's pond on the outskirts of Westport from 2-29 April 2000 (CAH see 2000. *Nova Scotia Birds* 42(3): 5). The other records are all in late summer and fall: immatures seen from 31 August-1 September 1972, on 29 July and 23 August 1980, 20 July 1984, early October 1987, 17 September 1992 (IAM), and from about 20-27 August 2009 (Fig 28) (the first of these in the little pond in Pond Cove, some of the others feeding in the intertidal at Western Light). One immature found on the Westport waterfront by George Garron on 23 May 2012 and photographed by Neil Green moved about along the waterfront, into the Westport marsh and in people's backyards until last seen on 30 May.

IBISES

Glossy Ibis / Ibis falcinelle *Plegadis falcinellus* (AU; P)

At least nine records between 1970 and 1996, all in May except for one that was present on the island from 30 April to 8 May 1981. Two that appeared on 7 May 1970 were taken as specimens (WL, CC). In common with the rest of the province, occurrences of Glossy Ibis fell off for many years, before being renewed by individuals in

Fig 28 Immature Yellow-crowned Night Heron at Northern Point in August 2009. This bird later spent several days in the intertidal at Western Light. Photo: Neil Green.

Fig 29 Near-adult White Ibis at the Lodge, 26 July 2004. Photo: Richard Stern.

April-May and early July 2014, and up to six from 17-22 May 2015 (CAH, Jake Walker).

White Ibis / Ibis blanc *Eudocimus albus* (P)

Two records: an immature on 18 April 1995 (1995. *Nova Scotia Birds* 37(3): 2); and an adult at the Lodge, 26-29 July 2004 (Virginia Tudor, CAH; photographed by RBS; 2004. *Nova Scotia Birds* 46(4): 7) and Fig 29).

NEW WORLD VULTURES

Turkey Vulture / Urubu à tête rouge *Cathartes aura* (P)

Significant numbers are present on the island, migrate over it, or visit it regularly from Long Island or Digby Neck through most of the year. Until the 1960s, Turkey Vultures were considered rare in Nova Scotia, after which they have become more and more common throughout the province, although concentrated in the southwest. The first record for the island was by WL on 8 October 1961, after which there were a few spring and fall records through the early and mid 1980s. A winter record of one in February 1986 was considered unusual (RBS). Until 1989, the species was a regular migrant in low numbers in May and September-October (occasional in summer) on Brier Island, but late that year a few birds overwintered and that has continued to the present. Turkey Vultures are now a noticeable feature of the island in all months of the year except June and July, when few are seen. There is no evidence so far of breeding, although it is suspected on Digby Neck. Migrants are frequent, especially with hawk flights in September and October, for example, 125 (with 80 in one group) on 11 October 1999, a group of 50 over Northern

Point on 12 October 2002, about 40 moving toward Grand Manan on 18 November 2005, 40-50 over the island during hawk migrations on 28-29 October 2007, and 100+ with Broad-winged Hawks on 12-13 October 2008, 27 concentrated by a seal carcass on the CBC of 15 December 2015, 58 near Western Light on 12 November 2016, 58 overhead at Western Light on 14 October 2018, 52 soaring in the same place on 16 October 2019, 100 reported soaring at Western Light on 13 October 2020, and more than 40 increasing to more than 90 near carrion in Pond Cove from 20-29 October 2020.

Black Vulture / Urubu noir *Coragyps atratus* (P)

Only two documented records, despite the increasing frequency of occurrence of this species in Nova Scotia: a lone bird, loosely associated with Turkey Vultures, 14-15 December 2008 (ELM, AHM); and one photographed on 25 August 2017 (Jeff Ogden).

OSPREY

Osprey / Balbuzard pêcheur *Pandion haliaetus* (AU; P)

A regular, although sparse, migrant in April-May (latest 5 June) and from late August through the third week of October (earliest 3 August 2016). Occasional birds in July are probably failed breeders or non-breeders. A very late migrant flew over the island on 7 November 2014. Occasional individuals have been observed in fall hawk flights. One specimen was taken in October 1965 (WL).

KITES, HAWKS, AND EAGLES

Mississippi Kite / Milan du Mississippi *Ictinia mississippiensis* (P)

Five records, beginning with an adult seen from 15-20 May 1993 (Peter McLeod; RBS, photographed), and a second-year individual from 1-24 September 1995 (John Kearney, m. obs., photographed). An immature was among Broad-winged Hawks on 23 September 2000 (RBS, NSBS); one immature, pestered by Sharp-shinned Hawks, crossing low over the Western Light area moving southeast with a hawk flight on 2 October 2000 could have been the same bird (account in 2000. *Nova Scotia Birds* 43(1): 19), and one was seen flying northeast over Northern Point on 24 August 2014 (LAL *et al.*).

Golden Eagle / Aigle royale *Aquila chrysaetos* (P)

Reported, at least since the 1960s, on average once every two or three years, although seldom with sufficient sighting details

or photo documentation to exclude immature Bald Eagles. The first, well-described, was seen 19 December 1971 (DWF, WL) and thereafter there are records from March 1972, December 1978, March 1980, April 1984, October 1987, September 1992, October 1996, January-mid March 1997 (CAH), September-October 1998, September-October 1999, early March 2005, September 2008, spring 2010, and late July 2012 and 2013. An immature on 4 November 1984 in Pond Cove was described in detailed field notes, one was on the island and fleetingly seen over the Big Meadow on 29 May 1997 (ELM, IAM), and an immature was photographed along the Lighthouse Road on 13 October 2013 (RBS).

Bald Eagle / Pygargue à tête blanche *Haliaeetus leucocephalus* (P)

Year-round resident (although scarce in winter) and occasional breeder, also a fall migrant. Small numbers of Bald Eagles have visited the island in nearly every month of the year, although most of the records are from April-May and September through November. Immatures frequently roost in the Pond Cove area to forage in the intertidal or in the big pond when its level is low. Occasionally a few may be in the fall raptor flights in September-October. Until recently there was no evidence of breeding, although it almost certainly occurred in Freeport, just across Grand Passage, where summering adults have been seen for several years. In summer 2020 local observers noticed a nest in a remote location on the island where adults had become conspicuous residents and one young bird was seen there during summer 2021.

Northern Harrier / Buzard Saint-Martin *Circus hudsonius* (AU, ROM; P)

Breeds in low numbers, based on courting birds in spring, pairs most summers, and the early appearance of juveniles in late summer. A common migrant in spring, especially in April and May (earliest 10 March), and in fall from late August through mid November, although in low numbers most days. Two were watched gaining height before setting off across the Gulf of Maine toward the southwest on 13 November 2000 (ELM). A few birds occur in winter. Specimens were taken 1 June and 15 August 1966, September 1966, 15 September 1967 (WL), and 4 October 1975 (R. Elliott).

Sharp-shinned Hawk / Épervier brun *Accipiter striatus* (AU, ROM, UMMZ; P)

The most abundant hawk in migration, peaking in the fall during the last week of September and first two weeks of October, when hundreds may pass in a day. Fall migration extends from early September through the middle of October (small movements have been noted as late as mid November), but the spring passage is small, mainly in May. WL recorded two on 1 January 1970. There is no evidence of breeding; our database of more than 800 records contains only four from June and one from July. Specimens now in the ROM, Toronto, were taken in September-October 1967, and October 1972 (WL, Barry Kent MacKay); one at AU was taken 11 October 1980 (WL); and there is one in UMMZ taken by Barry Kent MacKay in October 1972.

Cooper's Hawk / Épervier Cooper *Accipiter cooperii* (P)

A scarce migrant, reported nearly annually in fall but seldom with documentation, so that the status of this species is unclear, despite its increase as a resident and migrant on mainland Nova Scotia. Our database contains fourteen records ranging from early September through mid-December, centered on the last week of September, and coinciding with peaks in Sharp-shinned Hawk migration. A well-documented immature was seen on 24 August 1994 (Shirley Cohrs), and another on the Christmas count of 19 December 2000 (RBS; photographed). An immature was released from a lobster trap and photographed in Westport on 21 October 2020 (Alix d'Entremont, Kathleen MacAulay). There appear to be only three adequately documented spring records, 3 May 1982 (an adult female reported on 9-10 May 1993 was undocumented), 22 May 2003 (Terry Paquet), and 10 March 2016 (Rick Whitman, Jake Walker, Avery Bartels; convincing details).

Northern Goshawk / Autour des palombes *Accipiter gentilis* (NSM; P)

A regular migrant in low numbers. Spring records attributable to migration extend from mid April to late May. In fall, there appears to be a weak peak of migration from the last week of September to the middle of October, but there are records in August and throughout October, November, and December. Specimens in the NSM date from 28 October 1962 (Lloyd Duncanson) and 30 August 1975 (IAM).

Fig 30 Zone-tailed Hawk, 1 June 2014. Photo: Richard Stern.

Zone-tailed Hawk / *Buteo albonotatus* (P)

One flying with Broad-winged Hawks was photographed over the Pond Cove area on 1 June 2014 (Rick Whitman, RBS; Fig 30). This was the second record for Nova Scotia of this hawk from the far southwestern United States and Mexico, the first being east of Halifax in fall 1976.

Broad-winged Hawk / Petite Buse *Buteo platypterus* (AU, NSM, ROM; P)

This is the quintessential fall migrant buteo of Brier Island. During September and early October, especially on clear-weather northeast winds (caused by high pressure to the west and low pressure offshore of Nova Scotia), hundreds or sometimes thousands of birds arrive on the island, usually in late morning. Many return to the northeast within a few hours, but occasional groups may cross the Bay of Fundy northwestward, arriving on Grand Manan (*fide* Brian Dalzell, personal communication), which is visible from Brier Island on clear days. On 7 October 2012 two groups, totalling about 400 birds, set off due westward across the Gulf of Maine – one of the very few observations of migrant Broad-wings crossing open water from the island. The migration spectacle may begin during the last ten days of August, but usually peaks in the two-week period centered on 1 October. A few groups of Broad-wings may be on the move to the end of October, late fall individuals are not rare, and there are two winter records (immatures, 23 December 1997 to 11 January 1998 and 27 January 2022.). In spring our records extend from the beginning of May into June, peaking in

the last week of May; 10 on 14 June 2008 (with Turkey Vultures, Red-shouldered Hawks, and a Red-tailed Hawk) were exceptionally late. One immature found on 5-6 June 2021 was in exceptionally ragged plumage and could have been a survivor from remarkable over-wintering numbers in Nova Scotia in early winter 2020-2021. Occasionally an adult, possibly a failed breeder, will wander to the island in June or July. Specimens in the Acadia, Nova Scotia Museum and ROM collections were taken in 1959, 1965, 1966, 1967, and 1970 by WL, CC and Barry Kent MacKay, and one was photographed in October 2003 (RBS; 2004. Nova Scotia Birds 46(1): 13).

Red-shouldered Hawk /Buse à epaulettes *Buteo lineatus* (P)

Reported practically annually during fall hawk flights but seldom with documentation. WL's notes record the first, one on 24 November 1973. Thereafter we have at least thirteen records, ranging from 2-10 May in the spring and 20 August-20 December in the fall and early winter, the most unusual of which were adults well seen in mid December 1974, 1979 and 1992 (photographed; 1993. *Nova Scotia Birds* 35(2): 47), and a group of four or five immatures with unseasonably migrating Broad-winged Hawks, Red-tailed Hawks and Turkey Vultures on 14 June 2008. RBS photographed an adult on 25 August 1981. An injured individual found by Cindy and Eldridge Garron in their yard in Westport on 6 February 2014 was photographed and transferred to veterinary care

Swainson's Hawk / Buse de Swainson *Buteo swainsoni*

The first observed in Nova Scotia was reported by WL and Barry Kent MacKay in September 1964 (Tufts 1986, pp. 122-123). Since then, there have been sight records of lone adults on 1 October 1996 (Michael Hawkswood), 11-12 October 2003 (field notes by RBS), and a light phase immature present in September-October 2014, photographed by Rick Whitman on 25 September and by RBS on 31 October.

Rough-legged Hawk / Buse pattue *Buteo lagopus* (AU, NSM; P)

Primarily a fall visitor in ones and twos; our earliest record is 17 September, and several have been recorded in December on twelve Christmas counts. No doubt it is occasional in mid-winter too, although there appear to be only two reports, both of single birds, 1 January 1970 (WL) and 13 January 2001 (RBS). There are

a few spring records, ranging from 11 March to 25 May. The first specimens date from 3 November 1959 (WL, NSM); others were taken in October 1964, on 29 December 1966 and 3 January 1981 (WL).

Red-tailed Hawk / Buse à queue rousse *Buteo jamaicensis* (AU, MCZ, NSM; P)

A common fall migrant, usually in small numbers, often with migrating Broad-winged Hawks and Turkey Vultures, although frequently on its own. Our database shows records in almost every month of the year, although the majority are from September through November and in April-May. WL found three on the island on 1 January 1970. The 30+ reported 3 October 1982, 21 on the CBC of 29 December 1964, and 15 on the CBC on 29 December 1968 are exceptional numbers. Specimen records include one taken in December 1895 (M.A. Frazar) two females taken 3 November 1959 (WL), and individuals on 10 September 1964 and 28 February 1981 (WL).

OWLS

Long-eared Owl / Hibou moyen-duc *Asio otus* (AU, NSM; P)

At least 18 records, all but five (18 December 2001, 28 December 2003, 10 February 1964, 16 February 1981, and 17 May 2014) in summer and fall. This reclusive owl is certainly a fall migrant (September through December), but the presence of calling birds in summer, including duetting pairs and calls of young (mainly in August), suggests breeding. Specimens were taken in October 1959 and on 20 March 1967 (WL), and a migrant was photographed at Northern Point on 20 September 2001 (JUF).

Short-eared Owl / Hibou des marais *Asio flammeus* (AU)

Mainly a fall migrant, September through December, although there are winter and spring records (for example, 24 May 1970 (WL) and 26 April 2016). One present 3-6 July 1971 was unusual, but apparently not breeding. A specimen was taken in October 1964 (WL).

Great Horned Owl / Grand-duc d'Amérique *Bubo virginianus* (P)

Resident in low numbers, except possibly in the depths of winter. Some birds heard and seen in late autumn may be migrants.

Breeding was established by feeding calls of young (29 September 2007) and presence of a fledged young bird (9 June 2009, photographed by Chris Mills).

Barred Owl / Choutte rayée *Strix varia* (P)

Occasional on the island in fall, probably due to food scarcity on the mainland. Records range from early September to late December, including the CBC of 14 December 2012 through 25 January 2013 (Alix d'Entremont, Cindy Garron), along with one on the unusual date of 19 May 1997 (FLL).

Snowy Owl / Harfang des neiges *Bubo scandiacus* (AU; P)

Occasional in winter, and, as in the rest of the province, subject to irruptions which may be triggered by food shortage in the north, or at least as frequently, by food abundance followed by strong recruitment of young. WL recorded the arrival of four on 1 January 1972. Most records have been in November and December (earliest 20 October 1964, WL), mainly of single birds, but one was present on 12 May 1965 (WL) and at least 2 were in the Lighthouse Road-Western Light area in mid April 2009 (RBS). Occasionally much higher numbers have been reported, for example, 22 on 26 December 1960 (CBC), 11 on 19 December 1964 (CBC), 6 on 27 February 1965 (WL), 6 on 17 March 1967, 4 on the CBC of 23 December 1986 in a small area near Western Light, and 4 between Western Light and Gull Rock Point on the CBC of 14 December 2017. Three were collected on 11 December 1964 (WL).

Northern Hawk Owl / Chouette épervière *Surnia ulula* (P)

Only three occurrences: 4-6 April 1970 (WL); 8-16 May 1982 (Tufts 1986, p. 243; photographed, RBS; Fig 31); and one at the Lodge in mid December 1991 (1992. *Nova Scotia Birds* 34 (2):13).

Northern Saw-whet Owl / Petite nyctale *Aegolius acadicus* (P)

Breeds in small numbers. Reports have been sparse for the past decade, perhaps because of the presence of Great Horned Owls on the island. Calling birds have been heard beginning in March but mainly in the first half of April (although our records in March and April could be of migrants rather than birds on territory). One that responded to taped calls on 5 June 2009 had been on territory for several weeks, indicating breeding. Also, a fall migrant, mainly from mid September through December, and a few may overwinter, for example, one at David Pugh's feeder on 11 February 2005.

Fig 31 Northern Hawk Owl, 8 May 1982. Photo: Richard Stern.

No concerted attempt has been made to band this species, but there are four banding records ranging from 4-25 September, the first somewhat earlier than the expected migration window in fall.

Boreal Owl / Nyctale de Tengmalm *Aegolius funereus*

Probably a very sparse fall migrant, possibly also in spring, but seldom searched for. One appeared on the road near Western Light after dark on 12 October 1969 (IAM), and others were heard calling in the dusk on 13 October 1993, and in early October 2007 (FLL).

KINGFISHERS

Belted Kingfisher / Martin-pêcheur d'Amérique *Megaceryle alcyon*

A regular migrant from mid April through May and from late August into October, usually seen in Westport or around the ponds in Pond Cove. There are three winter records, individuals seen on the Christmas counts of 19 December 1979, 23 December 1980, and 14 December 2012. May breed occasionally; for example, the presence of a female on the big pond in Pond Cove on 29 June 2007 suggested breeding but was not definitive evidence.

WOODPECKERS

Red-headed Woodpecker / Pic à tête rouge *Melanerpes erythrocephalus* (AU, NSM)

A regular vagrant in May-June (earliest 10 April) and September-October, usually around Westport. There have been at least 17 records since the first on 4 June 1962 (WL). Specimens were

taken on 4 June 1962, 2 October 1964 (both WL), 2 June 1974 (CC), and 26 May 1975 (WL).

Red-bellied Woodpecker / Pic à ventre rouge *Melanerpes carolinus* (AU; P).

The first appears to have been a male (with an adult Red-headed Woodpecker) in the Hilltop Cemetery, Westport, on 24 May 1969. A specimen was taken on 24 June 1969 (CC). Since then, there have been at least 26 more occurrences, many between 30 April and 24 June except for a female in Hilltop Cemetery on 10 October 2003 (lingering into November), one on 30 September 2004, a female present for about two weeks in Westport during the first half of October 2008, two in Westport in October-December 2011, one in Westport 20 May, 22-23 October and mid November-December 2012, one in Westport on 13 December 2013, one in May-June 2015, one coming to Westport feeders through 16 December 2016, one in Westport through October 2018 (CAH), and one on 26 September 2019. One on the CBC of 14 December 2021 had been present for several weeks. These records have coincided with the increase of numbers on the mainland of Nova Scotia and sporadic breeding there.

Yellow-bellied Sapsucker / Pic maculé *Sphyrapicus varius* (AU, CMN; P)

A regular, although sparse, migrant in spring and fall. Spring records range between 5 April and 15 May (except for one on 23 March 1970 by WL, and another in early June that year), while those in fall have been from 23 September to 25 October. Specimens were taken on 23 September 1968 and 7 June 1970 (WL).

Hairy Woodpecker / Pic chevelu *Picoides villosus* (AU)

Like Downy Woodpecker a sparse migrant but showing less pronounced peaks of occurrence. Spring records range from mid March to early June, and those in fall from late August through October; there are also records in July-August, November, from CBCs in December, and in February. A pair arrived at Northern Point on 1 June 2016. A specimen was taken in September 1973 (WL).

Downy Woodpecker / Pic mineur *Picoides pubescens* (P)

A sparse migrant and occasional breeder. Spring records range from 5 April to 2 June and fall ones from 11 August to 21 November (peaking during the last week of August and in mid October). It is

not unusual during the fall peak periods to have birds fly in from the north during morning arrivals at Northern Point. A few have occurred in early winter, for example, individuals seen on CBCs on 23 December 1975, 18 December 1985, 14 December 2015, 2016, amd 2017, and 17 December 2019. A young bird with a female in Westport during the summer of 2021 was the first evidence of breeding (Lisa Clark).

Black-backed Woodpecker / Pic à dos noir *Picoides arcticus* (NSM; P)

Apparently first recorded on the island from 3-6 October 1960 by WL, Willett Mills and Harrison F. Lewis, when one was banded. Not long after, two males were collected on 12 October 1962 (WL). Since then, two spring records, 30 April 1972 and a pair 17-18 May 2003 (FLL), plus about five in fall and winter, ranging from 24 August to 29 December, including a bird banded on 6 September 1982.

American Three-toed Woodpecker / Pic tridactyle *Picoides dorsalis*

One sight record only, 29 September 1957 by WL (Tufts 1986, p. 268).

Northern Flicker / Pic flamboyant *Colaptes auratus* (P)

A common migrant in spring (mainly in early to mid April) and very common in fall, especially in early October (frequently from mid September). More than 90 arrived at Northern Point just after dawn on 10 April 2021, typical of spring arrivals in mid April noted since the 1960s. There is no proof yet of breeding on Brier Island, even though flickers breed on Long Island nearby and may be present on Brier Island into June. Young flickers soon disperse from mainland breeding sites, and it is not unusual to see several per day in August and thereafter, before the main fall migration begins in mid September. Very large arrivals of migrants are regular in the two-week period centering on 1 October, when groups of 100-150 may be found in hotspots like Northern Point, and there can be Flickers everywhere on the island then. Late-lingering individuals are fairly regular on Christmas counts in December.

Pileated Woodpecker / Grand Pic *Dryocopus pileatus* (P)

There have been six anecdotal and one documented reports of Pileated Woodpeckers on the island by reliable observers, including

one at Northern Point on 5 September 1999, one on 22 September 2002, one on 11 September 2007, one along the Camp Road about 13 June 2008 (Jamie Swift, *fide* JUF), one photographed near Hilltop Cemetery on 4 April 2010 (JUF), another that year on 18 September, and one reported on 8 August 2012. This species breeds on Long Island in Central Grove and possibly also in Freeport (a pair was seen there in suitable habitat on 2 July 2007), so it is not unexpected that the occasional bird might take the short flight to Brier Island.

FALCONS

American Kestrel / Crécerelle d'Amérique *Falco sparverius* (AU, ROM; P)

Especially common as a fall migrant, frequently perched along the roads. As Tufts (1986, p. 127) reported, "fall migration is especially noticeable by mid-August, and, on Brier and Seal Islands, daily counts of 25 or more have been recorded between early September and late October (exceeding 100 on several occasions between 21 September and 10 October)." Typically, judging by our database, 10-30 per day is a common number, although a group of 250-300 was reported about 9 October 2006 (PAC). Numbers in fall are in synchrony with the movement of other hawks, especially Sharp-shinned Hawks and Merlins, peaking between the last week of September and 15 October. However, fall arrivals can show up in mid to late July, WL reported 100 on 5 August 1964, and a few may still be passing through in mid to late December, for example one seen on the CBC of 14 December 2017 and one on 13 December 2018. WL recorded one in winter, 1 January 1970. Spring migration is much less dramatic, extending from the first week of April throughout May. Occasional birds have appeared in June or have summered without proof of breeding. Specimens were taken on 1 June and 25 September 1966, 10 October 1970 (WL), and 28 October 1972 (D.N. Meeking).

Merlin / Faucon émerillon *Falco columbarius* (AU; P)

This impressive little falcon is an abundant fall migrant and occasional breeder. There is evidence of spring migration from early April to the end of May. Breeding certainly occurred in 2002 and 2005 along the road to Northern Point, and an attempt in 2008 along the Camp Road failed for some reason. But Merlins come into their own in fall, chasing small sandpipers in Pond Cove, hunting

dragonflies over the meadows, harassing kestrels, or heading out southwestward over the Gulf of Maine during September-October hawk flights. Peak daily numbers during late September-mid October are usually 10-25. A few pass through into December, for example one in Pond Cove on 11 November 2019, one in Westport on 13 December 2017, and others on the CBCs of 14 December 2012, 2020 and 2021. Specimens were taken in September 1964 and October 1975 (WL).

Peregrine Falcon / Faucon pélerin *Falco peregrinus* (AU; P)

This splendid falcon is almost routine (usually by ones and twos but occasionally up to 5 a day) in September and October, occasionally into November and December, for example, individuals on the CBCs in December 2015, 2018, 2020 and 2021. There are two mid-winter reports, 1 January 2020 and 22 February 2006. Occurrences tend to peak with the migration of other hawks, but Peregrines are seldom seen soaring with the other raptors, instead they usually move rapidly along the shorelines of the island. Our database shows only eight spring records, 13 May 2006, 23 May 2010, 4 and 14 May 2011, 13 May 2012, 10 and 19 May 2013, and 28 April 2019. There are reliable sight records from other sources from 20 April 1991, 11 July 1997, and 27 July 1980. At least some are the result of the reintroduction of this species to the Maritimes beginning in 1982, but specimens taken in September and October 1964 (WL), before reintroduction, were likely birds from northern Canada (*F. p. tundrius*), as were at least five birds seen on 15 and 16 October the same year and many seen in autumn other years.

Gyrfalcon / Faucon gerfaut *Falco rusticolus*

Reported several times since the 1960s, first in January, February and March, then mainly from September through December, although with few field notes or other documentation. Separation from large dark Peregrines is not a trivial problem that has seldom been considered. The first report was of two on 27 February 1965, followed by one on 8 January 1971 or 1972 (WL). Dark phase birds in Pond Cove were reliably recorded on 7 October 2001 (Terry Pacquet), 13 December 2004, 29 October 2005 (CAH), and 14 December 2005, and one was at Western Light in unspecified plumage on 29 October 2005 (CAH). A dark-morph individual was photographed overhead at Northern Point on 28 November 2021 (Robert Galbraith).

TYRANT FLYCATCHERS

Olive-sided Flycatcher / Moucherolle à côtés olives *Contopus cooperi* (P)

A sparse migrant, mainly during the last week of May (earliest 20 May) into early June and from mid August into the last week of September. Over 20 birds have been banded, ranging in date from 10 August to 27 September. One reported from 4-5 November 2001 (Patricia Chalmers) was exceptionally late.

Eastern Wood-Pewee / Pioui de l'Est *Contopus virens* (P)

Common in spring and fall migration, in spring during the last week of May (earliest 17 May in our records) into the second week of June and in fall from mid August through a September peak. WL found six killed at Western Light on 6 August 1964. The latest banding record is 10 October 1980, and there is a sight report fom 16 October 2015 (Don MacNeill and Bernice Moores). Twelve reported on 10 April 1974 (WL) were exceptional by date and in number; one on 29 March 1970, one on 11 April 1969 and one on 14 April 1977 were early (reports by WL), and one on 14 October 1987 was unusually late.

Acadian Flycatcher / Moucherolle vert *Empidonax virescens* (P)

Six records of this very rare vagrant from the U.S. southeast (Fig 32): single birds on 14 May 1984 (documented; IAM, Bernice McLaren); 26 May 1996 (documented and photographed; Roger Foxall, IAM, see 1996. *Nova Scotia Birds* 38 (3): 13, and 1997. *Nova Scotia Birds* 39 (2) following p. 33, also McLaren 1996, where the year is incorrect); 18 May 1997 (documented; ELM, IAM, Angus MacLean; Mills 1997); 20 September 1998 (Matt Holder, IAM); and the most recent, 21 May 2018 (documented; ELM).

Yellow-bellied Flycatcher / Moucherolle à ventre jaune *Empidonax flaviventris* (P)

A spring migrant in low numbers and sometimes common fall migrant during the last week of May (earliest 18 May) into early June and sometimes a common fall migrant from the last two weeks of August through the first three weeks of September. The latest dates (from banding) are 29 September 1976 and 12 October 1997. Eight to 10 birds per day during banding sessions in late August are common, and high totals include 46 on 28 August 2016, 55 on 1 September 1979, and 83 on 30 August 2006. This species breeds sparsely on

Fig 32 An Acadian Flycatcher, showing the typical greenish colour, long wings, and long broad tail, in Westport on 26 May 1996. Photo: Ian McLaren.

Long Island only a few kilometers away, but it was not detected as a breeding species on Brier Island during the last Maritimes Breeding Bird Atlas surveys (2006-2010). Recent surveys have shown singing males on territory around the edges of the Big Meadow Bog (*fide* John Brazner) and other bogs in the center of the island, so there is little doubt that it breeds there.

Alder Flycatcher / Moucherolle des alnes *Empidonax alnorum* (P)

The common summer resident flycatcher of Brier Island, breeding widely in alder thickets. A few usually begin to arrive during the last week of May (earliest 11 May), but the bulk of the population arrives during the first week of June, significantly later than on the mainland. There is a fall migration peak during the last week or two of August, for example, 75-100 at Northern Point on 23 August 1992 (Angus McLean), and a banding peak about 24 August. Ninety were banded on 25 August 2006. Most have left by the end of the first week in September, although migrants have been reported through the rest of the month. The latest record is of a bird banded on 4 October 1981.

Willow Flycatcher / Moucherolle des saules *Empidonax traillii*

Seven reports: one heard and seen in downtown Westport on 11 June 1995 (Ken McKenna); another singing on the outskirts of Westport during an arrival of Alder Flycatchers on 2 June 2009 (FLL, Clarence L. Stevens); a singing male at Northern Point, 2-21 June 2012 (IAM, ELM); one giving a Willow-like callnote on 28 August 2018: a singing male along the Northern Point Road,

1 June 2020 (ELM); a singing male on 13 June 2020; and one singing at the SW corner of the Big Pond, Pond Cove on 11 June 2021 (Kevin Moore). Willow Flycatcher is now a sparse breeding species in western Nova Scotia, so more observations may be expected from Brier Island.

Least Flycatcher / Moucherolle tchébec *Empidonax minimus* (AU; P)

A regular and frequently abundant migrant during the last two weeks of May and from mid August to mid September (with occasional reports and banding records to the end of the month). Thirty-five were banded on 27 August 2008 and a major arrival of about 100 was noted on 2 September 1984. The earliest spring record is 10 May and the latest in fall 3 October. One specimen was taken on 18 May 1974 (WL).

Eastern Phoebe / Moucherolle phébi *Sayornis phoebe* (P)

Regular although not abundant in spring and fall, arriving normally by the end of the first week in April and in fall in mid September, peaking in early October. Earliest spring record 1 April (WL) and the latest in fall 4 December (ELM, IAM). A breeding pair occupied an abandoned building in Westport during May 2010. One at the Lodge on the evening of 30 July 2009 and another there on 25 July 2016 were probably post-breeding birds from the mainland.

Say's Phoebe / Moucherolle à ventre roux *Sayornis saya* (P)

Only four records of this vagrant western bird. The first was found on 27 August 1980 (C.H. Barnett and C.W. McCormick); the second on 24 October 1987 was photographed (RBS); the third, also photographed (IAM), was in Hilltop Cemetery on 6 September 1997 (Fig 33); and the most recent, one briefly on a picnic table at Northern Point on 21 August 2017 (Jane Sender, Kathy Seymour; photographed – see eBird).

Great Crested Flycatcher / Tyran huppé *Myiarchus crinitus* (AU; P)

A scarce migrant in late May – early June (earliest May 10, with one banded May 14) and throughout September (occasional in August – latest 30 September). One on 16 June 1982 (Ian Kirkham), another on the Camp Road on 28 June 1970, and one on 27-28 June

Fig 33 A Say's Phoebe perched atop a headstone in Hilltop Cemetery, Westport, on 6 September 1997. Photo: Ian McLaren.

1980; all were likely non-breeding or post-breeding wanderers. A specimen was taken on 22 May 1967 (WL).

Western Kingbird / Tyran de l'Ouest *Tyrannus verticalis* (AU, NSM; P)

Apparently first recorded on 24 September 1957 (John Comer, W.J. Mills – *fide* Tufts 1961, p. 281), then on 13 and 17 October 1958 (WL). Harrison Lewis (in the Shelburne *Coast Guard* 65, 30 October 1958) reports that 9+ were seen that season on the island. Overall, since then a scarce but regular fall vagrant: most records range from 27 August to 17 November. An immature found in Westport on 12 December 2015 was still present for the CBC on the 14th. Specimens were taken on 23 September and 13 October 1958 (WL), 12 November 1966, and 18 October 1969 (CC).

Eastern Kingbird / Tyran tritri *Tyrannus tyrannus* (AU, NSM; P)

Kingbirds probably breed at least occasionally on Long Island, only a few kilometers away, but on Brier Island this species is primarily a spring and fall migrant, often in considerable numbers. Numbers peak in spring in mid to late May (earliest about 12 April, latest 8 June), and in fall from the last week of August into mid September (earliest 11 August, latest 27 September). Numbers may occasionally be considerable, for example, 25 on 8 May 1964, 35 on 15 May 1969 (WL), and a group of 14+ on 8 September 2020. There are a few records of summering birds, for example one on 27-30 June 1988, one on 28 June 2012 (Larry Neily), two on 14 June 2015, and one on 18 June-12 July 2016 (Jim and Jean Wilson, ELM), but no definitive evidence of breeding. Specimens,

one possibly on 12 September 1951, the other from 12 October 1957, were taken by WL.

Scissor-tailed Flycatcher / Tyran à longue queue *Tyrannus forficatus* (P)

Two records: an immature on 6-7 August 2005 (Linden Thurber, CAH); and one (age not mentioned) on 29 June 2008 (Robbie Denton, CAH), both in Westport.

SHRIKES

Loggerhead Shrike / Pie-grièche migratrice *Lanius ludovicianus*

Very scarce, and recorded only once since mid 1975, an individual documented in detailed field notes on 15 June 1996 (Mike Baldock). Of the six other records, five range from 12 August to 13 September, and one was of a bird present from 15-18 April 1975 (1975. *Nova Scotia Bird Society Newsletter* 17 (2): 92). Despite intensive birding since then, Loggerhead Shrike has all but vanished as a vagrant on Brier Island, reflecting its declining abundance in eastern North America.

Northern Shrike / Pie-grièche grise *Lanius borealis* (AU; P)

Scarce in late winter and spring (records of single birds in late February, March and April), but regular in late fall and early winter (always single birds, usually immature), mainly in November and December. One was observed on the CBC of 14 December 2010. An immature along the Lighthouse Road on 23 October 2012 (Ken McKenna) was slightly early. One specimen was taken on 7 April 1966 (WL).

VIREOS

White-eyed Vireo / Viréo aux yeux blancs *Vireo griseus* (P)

A rare vagrant in spring and fall. First recorded from the island (as a banding capture) on 17 May 1970 (Ross Anderson; Tufts 1986, p. 343); another was banded on 6 September 2012. There are at least twelve other reports, all but one in May or September-October, some documented: one on 11 May 1979 (BMT); one on 25 November 1984 (RBS; photographed); a male on 29 May 1988 (IAM); an adult near the Lodge on 27 May 1997; another on 2 October 1997 (Angus MacLean); one on 23 September 2000 (NSBS); immatures

near Northern Point on 24 September and 7 October 2001; one on 19 October 2002 (Terry Paquet); one on 10-11 October 2010 (Don MacNeill and Bernice Moores); one on 22 October 2012 near Northern Point; and one along the Camp Road on 30 October 2016 (Jake Walker and Rick Whitman).

Blue-headed Vireo / Viréo à tête bleue *Vireo solitarius* (AU; P)

A regular migrant in spring and fall. Spring records extend from the last days of April through May (peaking in the last half of May). In fall a few migrating individuals appear in the last ten days of August but banding and sight records indicate that the peak of a broad migratory period extends from the third week of September through the first two weeks of October. Individuals on 7 November 1973 (IAM) and 12 November 2016 (George Forsyth) were exceptionally late. Specimens exist from 4 October 1975 and 14 September 1985.

Yellow-throated Vireo / Viréo à gorge jaune *Vireo flavifrons* (P)

A rare migrant in spring and fall, recorded so far only in May and August-September. The first was seen on 13 September 1975 (BMT), another (undocumented) on 3 September 1995 (Bernard Forsythe), followed by one on 20 September 1998 (IAM). One was with other migrants at Northern Point on 5 September 1982, another on the island on 23 August 1992 (Angus MacLean), one was present 18 May 2003 (FLL, NSBS), a worn adult was near Pond Cove on 9 May 2008, one was reported on 17 May 2016 (Russel Crosby), and another on 6 September 2020. Four have been banded: on 26 May 1977; 1 and 4 September 1979; and 4 September 1982.

Red-eyed Vireo / Viréo aux yeux rouges *Vireo olivaceus* (AU, CMN; P)

A common migrant, especially in fall. In spring, most records are from mid May into the second week of June. Fall migrants appear in low numbers through the last week of August, peak during the first ten days of September, and are still relatively common to mid October (the latest a bird banded 23 October 1982). Occasionally a singing bird appears in late spring or mid summer, but the nearest known breeding site is in Little River on Digby Neck. Specimens were taken on 12 September 1969 (Robie W. Tufts) and 24 May 1975 CC).

Philadelphia Vireo / Viréo de Philadelphie *Vireo philadelphicus* (AU; P)

An uncommon migrant, but regular, especially in autumn. About eight spring records fall in the last two weeks of May (including birds banded on 24 and 27 May 1977); another one, exceptionally, was on 5 May. In fall, the first migrants appear during the last week of August, peak during the first two weeks of September and extend into October (latest 14 October). Specimens were obtained on 30 May 1976 and 3 September 1983 (WL).

Warbling Vireo / Viréo mélodieux *Vireo gilvus* (AU; P)

An uncommon migrant in late May and late August into October. There are only six records in our database between 1975 and 2006 (including birds banded on 22 May 1981 and 12 September 1982), plus published reports of at least 19 other individuals in May, July (exceptional), August, September, and October through 2019, one of which was banded on 31 August 2013. There is a specimen from 24 May 1975. These records probably under-represent the occurrence of this inconspicuous species.

CORVIDS

Canada Jay / Méssangeai du Canada *Perisoreus canadensis* (P)

Mainly a scarce non-resident visitor. There are scattered records through the early 1960s, WL reported nesting about 1964 (1966. *Nova Scotia Bird Society Newsletter* 8 (1): 15), and a family group was present on the island from at least August 1969 through 1972. Thereafter, there are a few records, especially in fall, from 1973 until 1980, after which the species apparently disappeared entirely from the island until two spent the late summer and fall of 2007 along the road to Northern Point. Thereafter there have been occasional reports of family groups, the latest in September 2020 (Mark and Sandra Dennis). The closest regular breeding sites are on Digby Neck, from which, presumably, there are occasional visitors to Brier Island and, even more rarely, breeding.

Blue Jay / Geai bleu *Cyanocitta cristata* (P)

A very abundant migrant, especially in fall. Breeds sparsely in Westport, probably only since about 2000. A few birds overwinter in Westport. Spring migrants occur in April, increase in May, but, surprisingly, are still arriving as late as the end of May or

even into June. Small groups at Northern Point on 10 June 2011, 7 June 2013 (Dennis Garratt), 12 June 2015, 1 June 2016 and 6 July 2017 appeared to be migrants. The greatest numbers occur in fall, especially in the first half of October, although apparent migrants may be seen even in August. Numbers in September-October can be impressive, for example, 1000+ on 8 October 1983, 500+ (including 200 in one flock flying high past the island) on 10 October 2008, and 820+ leaving the island toward the NE on 26 September 2020.

Black-billed Magpie / Pie bavarde *Pica hudsonia* (P)

One record, probably of this spectacular westerner not its European relative, was an individual found by WL along the Lighthouse Road on 14 May 1973, apparently seen through 18 May, and photographed by Wayne Neily (photo not located).

Eurasian Jackdaw / Choucas des tours *Corvus monedula* (P)

The first Jackdaw recorded in Canada was found on Brier Island by Nancy Blair and John Kearney and photographed by IAM on 6 May 1984. This appears to have been part of a broader arrival of this species in Canada that year, probably ship-assisted, from Europe.

American Crow / Corneille d'Amérique *Corvus brachyrhynchos* (P)

Breeder, common year-round resident, and migrant. The ubiquity of crows disguises interesting seasonal patterns, including a fall buildup in October, the exodus of hundreds (total numbers unknown) to the southwest across the Gulf of Maine with following winds in November, and the arrival thereafter of a significant overwintering population, much of which frequents, and forages in, the Pond Cove area. Spring movements are less clear, but the main migratory action appears to be in April.

Common Raven / Grand Corbeau *Corvus corax* (P)

Like crows, ravens are breeders, year-round residents, and migrants. The breeding population on the island is probably quite small, perhaps a half-dozen pairs, but there is constant traffic onto and off it across Grand Passage from the much larger Long Island. Ravens are frequent in fall-migrating flocks of Turkey Vultures and buteos, suggesting that migrants from the northeast augment or replace the resident birds in the fall, mainly from October through early December. There is some evidence of a spring buildup in

April. A family group, probably from a breeding site on the south end cliffs, is a regular presence in Westport during the year and other groups constantly patrol the shores practically year-round.

LARKS

Horned Lark / Alouette hausse-col *Eremophila alpestris* (ROM; P)

A regular spring and fall migrant. Although birds were seldom assigned to subspecies in our database, most have been the northern-breeding *E. a. alpestris*. A specimen, taken 26 October 1972 (Barry Kent MacKay), is of the so-called "prairie" race, *E. a. praticola*, which actually breeds sparsely in Nova Scotia. In spring, arrivals are typically from mid January to mid April, and in fall a few appear in late September, peaking from mid October through November. Small flocks may remain into December or longer in open winters.

SWALLOWS

Purple Martin / Hirondelle noire *Progne subis*

An uncommon migrant in mid to late May and early June and from late August to the end of September. An early overshooting bird was on the island on 29 April 2000 (CAH). Now that this species has been extirpated in Nova Scotia (no nesting at the last colonies in Cumberland Co. for several years), birds on Brier Island are probably true vagrants from farther west and south.

Tree Swallow / Hirondelle bicolore *Tachycineta bicolor* (KU; P)

A common migrant in spring and fall. Breeds on the island, mainly in Westport. A few migrants appear in the middle of April (earliest 4 April), but the main passage and arrival is from late April to mid May, considerably later than on the mainland. WL noted a remarkable arrival of about 2000 0n 26 April 1967. The first fledged young appear at the beginning of June and breeding adults leave their nesting sites during the last week of July. In fall, flocks begin to stage during the last half of August (exceptionally in early to mid July) and most have left by mid September. Some very late small flocks were seen on 5 November 1961 (WL) and 12 November 2005 (CAH), the latter perhaps the lingering effect of Hurricane Wilma at the end of the previous month. N.S. Goss took specimens on 28 April and 17 May 1880.

Barn Swallow / Hirondelle rustique *Hirundo rustica* (AU; P)

Originally a common breeder, but since the early 1980s reduced to one or two pairs in Westport. Migrants occur in spring primarily from mid to late May (some in late April, earliest 9 April) and in fall from late July through the second week of September (usually peaking during the last half of August into the first week of September). Very late migrants were seen on 3 November 1973 (WL) and 12 November 1988 (RBS). An amelanistic bird was collected in September 1971 (CC).

Northern Rough-winged Swallow / Hirondelle à ailes hérissées *Stelgidopteryx serripennis* (P)

A very scarce migrant, in spring mainly during the last few days of May, also records of two on 12 May 1984 (SIT), two on 17 May 2003 (FLL, NSBS), one on 16 May 2016 (Russel Crosby), and in fall during the first week of September. A pair first seen and photographed (RBS) on 19 May 2012 nested under the eaves of a building in Westport. They were observed feeding young on 21 June and foraging at the end of September, but did not return in later years.

Bank Swallow / Hirondelle de ravage *Riparia riparia* (P)

This swallow nested in Pond Cove until about 1972, but nowhere on the island since then. Now it is only a relatively regular migrant in low numbers, in spring between mid May and the first few days of June, occasional in mid summer, and in fall from mid August until the end of September (numbers peaking during the last week of August).

Cliff Swallow / Hirondelle à front blanc *Petrochelidon pyrrhonota*

Nested in Westport, primarily on the community hall, but probably not regularly after 1971, although LAL remembers nests on a fish shed in or after 1977. Ian Kirkham reported adults with fledglings on 24 July 1982, probably the last year that the species nested. Now a spring and fall migrant with other swallows, occasionally in moderate numbers, from mid to late May (earliest 15 April, latest 2 June) and from the last ten days of August through the first week of September (latest 21 October).

TITMICE

Black-capped Chickadee / Mésange à tête noire *Poecile atricapillus* (P)

A year-round resident and common migrant; breeds. Numerous family groups of locally- breeding birds appear at the end of August. Significant arrivals of migrants have been noted in April, May, September-October (see Lewis 1960), and November. Peak banding records have been in September through November. In early May 2006, CAH noted the arrival of "hundreds" on the island; and on 25 May ELM wrote "300+, mainly at Northern Point in the early morning – in large flocks towering overhead and landing in shrubs at end of the point....Apparently a massive arrival." Many of these birds remained at Northern Point for at least a week, and some may have remained for longer; 100 were noted in the same location on 22 June. In years when this species' populations are high, large numbers may arrive on the island from the end of September through early November. In low years, very few migrant chickadees arrive and few remain on the island in late fall.

Boreal Chickadee / Mésange à tête brune *Poecile hudsonicus* (P)

A year-round resident in low numbers; breeds sparsely, mainly in the Northern Point and Whipple Point areas but probably also in other areas of spruce forest. The number of residents has decreased since the mid 1980s. By 2021 it has become hard to find residents in their usual places. Migrants occur some years, often in November, but also occasionally in May, late August and especially October (for example, 22 on 3 October 1960 and 50 on 5 October 1968). "Large numbers" were banded from 1-6 October 1960 – see Lewis 1960 – and later banding peaks have all been in October, often with Black-capped Chickadees.

NUTHATCHES

Red-breasted Nuthatch / Sitelle à poitrine rousse *Sitta canadensis* (P)

A summer resident in low numbers; breeds at least occasionally. An abundant migrant, especially in fall. Spring arrivals are mainly during the last two weeks of May, but numbers in April have been noted. When populations are high, this irruptive species is amongst the earliest passerine migrants to arrive in fall, sometimes in early

August. A few birds may arrive even earlier, for example, two at the tip of Northern Point on 25 July 2005 behaved like migrants, not resident birds, moving rapidly and restlessly through the treetops. More commonly, in fall the first migrants appear in numbers in mid August and by the end of the month it is not unusual to see 200-300+ a day during major migratory fallouts. Smaller peaks then occur into October and a few remain into or through the winter.

White-breasted Nuthatch / Sitelle à poitrine blanche *Sitta carolinensis* (CMN; P)

Uncommon and irregular on the island, mainly in April-May (earliest 29 March) and September-December. One overwintered in Westport in 2003-2004, and there was one on the CBCs of 14 December 2015 and 14 December 2020. Usually only single birds are seen, but several arrived in mid April 2002 (*fide* CAH) and at least five stayed until the end of the month. One specimen now in the CMN was taken in September 1968 (WL).

CREEPERS

Brown Creeper / Grimpereau brun *Certhia americana* (NSM; P)

A migrant in low numbers, usually seen in April-May (earliest 7 April; 40 on 1 May 1985) and from mid-September into October. Occasional on CBCs in mid December. Before 2000, banding records of this species were mainly from after mid-September through mid-October. Since 2003, increasing numbers have been seen and banded in August (earliest 8 August 2003) and early September, suggesting the possibility of local breeding. A specimen in the NSM was taken on 23 October 1958 (collector Willett Mills) and another exists from 5 September 1983.

WRENS

House Wren / Troglodyte familier *Troglodytes aedon*

There are only 13 records in our database, from 30 August to 17 December, beginning in 1971. Nine were between 30 September and 11 October, dates coinciding with observations from other vagrant hotspots in southwestern Nova Scotia. The later records include 9 on 5 October 1975, and single birds on 4 October 1981 (IAM), 10-11 September, 3 October and 23 October 1982, 4-5 October 1987, 6-8 October 1990 NSBS), and one during the CBC on

17 December 1992 (RBS). Another was reported singing in Westport on 2 June 2009 (FLL, Clarence L. Stevens).

Winter Wren / Troglodyte mignon *Troglodytes hiemalis* (P)

A summer resident and breeder in modest numbers. Usually arrives in mid April (earliest 6 April); fall migrants have been recorded in low numbers through September and October. One was found on the CBC of 20 December 1976, two on the 14 December 2012 CBC, and one on the 14 December 2018 CBC.

Carolina Wren / Troglodyte de Caroline *Thryothorus ludovicianus* (P)

Two records. The first was found in the Woodside Cemetery on 25 August 2006 by Doug McRae and a birding tour group. This bird may have stayed for more than a month, because a Carolina Wren song was heard by ELM along the Camp Road nearly two weeks later, on 6 September, and one was reported on 30 September. The second was banded and photographed at Northern Point on 24 August 2016.

Marsh Wren / Troglodyte de marais *Cistothorus stellaris*

Surprisingly rare on the island, considering that this species breeds locally in northern Nova Scotia, is a regular fall migrant, and even lingers into winter in low numbers elsewhere. Only nine records, all in April-May and September-October: 27 October 1961 (WL); two in October 1963 (WL); 31 October 1964; 26 April 1965; 17 May and 11 October 1971; 3 October 1981 (IAM); 22 September 1996 (FLL); and 17-18 May 1997.

Sedge Wren / Troglodyte à bec court *Cistothorus platensis*

Only four records, the first a singing male near the foot of the Camp Road on 26 May 1971, one recorded by WL on 29 April 1972, one near Western Light on 1 October 1997 (Ed LeBlanc, FLL), and a bird singing in Pond Cove on 9 September 1998 (Angus MacLean).

GNATCATCHERS

Blue-gray Gnatcatcher / Gobemoucheron gris-bleu *Polioptila caerulea* (P)

A scarce but regular vagrant, usually in late August and September (about 23 records). Our database also includes records from spring, including 20 May, 22 May and 28 June 1970, and reports

in other years spanning 8-31 May plus an early individual, 19 April 2017. One on 11 October 2010 (Don MacNeill and Bernice Moores) was late, although not out of line with fall records from elsewhere in the province, and another in Westport among Chickadees on 4 December 2010 (ELM, IAM) was decidedly late.

KINGLETS

Golden-crowned Kinglet / Roitelet à couronne dorée *Regulus satrapa* (P)

A resident breeding species and abundant migrant. Spring migrants occur from early April through May. In fall, a peak of locally-breeding birds occurs at the end of August into early September, while migrant numbers are highest at the end of September and into the first two weeks of October (150 reported on 5 October 1968, 500+ on 10 October 1983). Winters in low numbers.

Ruby-crowned Kinglet / Roitelet à couronne rubis *Corthylio calendula* (P)

An abundant spring and fall migrant. Spring migration begins during the second week of April (for example, 50+ on 17 April 1997 and 20 on 15 April 1998 (CAH)), peaking during the first two weeks of May. A late individual was seen on 11 June 2010. In fall, a few early migrants in August probably originated nearby; the peak of migration is late September to mid October (for example, 200 on 5 October 1975, and 50+ at Northern Point on the mornings of 12 and 14 October 2008). A few may be present well into November, and individuals were found on CBCs in December 1971, 1974, 2004, 2006, 2009, 2012, 2015, 2019 and 2020.

OLD WORLD FLYCATCHERS AND CHATS

Northern Wheatear / Traquet motteux *Oenanthe oenanthe* (P)

Only four records. The first, an immature, was found by Robbie Denton and Tony Glavin on 25 September 1981 (present to 4 October; photographed). Another was seen briefly along Gull Rock Road, 28 May 1990, and there was an immature at the Lodge (photographed) on 30 September 2007. One was discovered along the rocky shore of Sweetcake Cove, near Southern Point, on 11 September 2021 (Lori Buhlman). All seem to be referable to the Greenland- and Nunavut-breeding *O. o. leucorhoa*.

THRUSHES

Eastern Bluebird / Merlebleu de l'Est *Sialia sialis* (NSM; P)

A spring and fall visitor, often in small groups, and occasional breeder. Most spring records have been in May and through the first three weeks of June (earliest 1 April, latest 3 July), and fall ones between 3 August and 17 December. A flock of 25-30 migrants was present in Westport on 15-16 October 2004 and at least that number along Lighthouse Road on 28 October 2018 (CAH). In summer 1990, breeding occurred during the period of the first Maritimes Breeding Bird Atlas (RBS), and probably again in 1994 and 2002. In 2009, at least one pair of a group of six birds that arrived in early June raised a brood in Westport. Another brood fledged successfully in a different location during 2010. A specimen was taken on 13 April 1959 (WL).

Townsend's Solitaire / Solitaire de Townsend *Myadestes townsendi*

The first for Brier Island was well described by George Garron from observations at his feeder in Westport on 17-18 December 2007. A second report (by CAH) from Hilltop Cemetery on 13 January 2008 may have been the same bird, or possibly a second considering that there was a major influx of this species into Nova Scotia during the period.

Gray-cheeked Thrush / Grive à joues grises *Catharus minimus* (AU; P)

Rarely reported, but undoubtedly a common migrant in May and September-October. Thirteen have been banded, most during the last week of September, but also one in the period 2-6 October 1960 (WL, Willett Mills). Sight records of this reclusive species include two on 18 May 1986 (FLL, Jim Taylor), 70 heard passing over the island after sunset on 6 September 1971, two seen on 15 September 1973, one on 2 October 1997 (IAM), two heard on 9 October 1998 (FLL), 2-10 on 10-11 October 2003 (FLL), 72 heard overhead at night on 10–11 October 2004 (FLL, Clarence Stevens, Jr.), and one on 1 October 2005 (FLL). The number of birds stopping over is uncertain, but it seems likely that many individuals of this common boreal forest species pass over at night without stopping during their long-distance migration. A specimen was taken on 25 September 1983 (CC).

Bicknell's Thrush / Grive de Bicknell *Catharus bicknellii*

Two sight records: two seen with several other early thrushes on 29 April 1983 (IAM, ELM); and one on 11 October 2003 (FLL).

Veery / Grive fauve *Catharus fuscescens* (P)

A regular migrant, in spring mainly in the last half of May (but the earliest 28 April) and in fall primarily during the last ten days of August and the first ten days of September. One was with hundreds of migrant passerines along the Lighthouse Road before dawn on 11 October 2008. One found dead on 16 June 1982 (Ian Kirkham), the same day as an unseasonal Great Crested Flycatcher, and others the following day and on 24 July of that year, are hard to account for. The closest known breeders are at the base of Digby Neck where there is suitable moist deciduous forest habitat.

Swainson's Thrush / Grive à dos olive *Catharus ustulatus* (P)

A common migrant and moderately common breeder all over the island. The first males begin to sing on territory late (compared to the mainland), during the last week of May (earliest arrival reported, 16 May). Based on sight observations and banding records, fall migration appears to begin during the last ten days of August and continues into October (latest 26 October). At least 10 were among a variety of newly arrived passerine migrants along the Lighthouse Road before dawn on 11 October 2008. LAL's banding records indicate a peak of young Swainson's Thrushes in late August and a double-peaked pattern of occurrences in early and later September, the first probably of local adults and the second of long-distance migrants.

Hermit Thrush / Grive solitaire *Catharus guttatus* (CMN; P)

A common migrant and sparse breeder (a female carrying food on the Camp Road, 2 June 2018). Singing males appear on territory on Brier Island much later than on the mainland, usually during and after the second week of May (earliest 2 May 2013). Migration is underway much earlier, for example 25+ seen on 14 April 2001 and many sight records through the last half of April. In fall the main passage occurs through October, but a few birds arrive, or linger, well into November. Fifty were counted on the island on 25 October 2012. One was photographed during the CBC on 18 December 2007 (JUF) and there are also records of individuals on the CBCs of

16 December 2016 and 17 December 2019, plus four lingering on the island during the CBC of 14 December 2020.

Wood Thrush *Hylocichla mustelina*

A rare migrant. About ten records, mostly in May (earliest 10 May); only three records in fall, 1 September 1971, 20 September 1979, and 22 November 1998 (Matt Holder, Andrea Kingsley). One was banded and released on 27 May 1977.

American Robin / Merle d'Amérique *Turdus migratorius* (P)

This is the most conspicuous breeding passerine bird on Brier Island and an abundant migrant. Robins occasionally linger into early winter and are regularly recorded on Christmas counts. Large numbers arrive in mid to late April (earliest arrivals 10 March, and 500 by WL on 30 March 1969) and arrivals continue well into May. Most of the summer residents leave by the end of August and very large flocks of migrants pass by the island or stop on it beginning in early October through the first half of November, coinciding with the passage of cold fronts. Numbers can be impressive, for example, 500+ on 8 and 18 October 2008, 400+ on 28 October 2004, 400+ in total on 12-13 November 2000, 1000 on 24 October 2012, 500 on 11 November 2019, and 1020 on 23 October 2020 (Alix d'Entremont, Kathleen MacAulay), all at Northern Point. Fifty in Westport on 14 February 2004 (CAH) were undoubtedly wandering overwintering birds.

MOCKINGBIRDS & THRASHERS

Gray Catbird / Moqueur chat *Dumetella carolinensis* (P)

A moderately common breeding species, arriving on territories between mid May and the first week of June. One on 29 April 1984 and a singing male along the Northern Point Road on 30 April 2009 were unusually early; 40+ seen on 27 May 1971 were in exceptional numbers. Most of the summer residents appear to leave by the end of the first week in September, and migrants are seen through September to mid October (latest 17 November).

Northern Mockingbird / Moqueur polyglotte *Mimus polyglottos* (AU; P)

Since being first reported on 25 October 1959 (Madeline Lent), there are now about 70 records spread through nearly every month of

the year, but mainly in spring and fall. Most of these birds appeared in Westport, where habitats are certainly suitable for Mockingbird nesting, but so far this has not happened despite suggestions of birds on territory on a few occasions. Most of the occurrences cluster in April-May and October-November, indicating migration or post-breeding wandering, and there are a number of records on CBCs. Nine on 15 April 1967 were unusual (WL); all the other records are of one or two. A specimen was taken on 10 September 1965 (WL).

Brown Thrasher / Moqueur roux *Toxostoma rufum* (CMN, NSM; P)

First reported on 2 October 1957 and first banded 17 October 1958. A sparse migrant, mainly in April-May (earliest 5 April, latest June 19) and in September-October (earliest 1 September, latest 30 November). Twelve were seen on 4 June 1963 according to Madeline Lent, WL recorded seven on 16 May 1969, and there were at least four in Westport in early April 2006 (CAH). Three have occurred on CBCs, 21 December 1981, 19 December 1983 and 18 December 1990, the last overwintering to at least 10 March 1991 (RBS). Another overwintered at CAH's feeder in 1999-2000. Specimens were taken on 19 June 1961, 2 September 1963 and 4 October 1963 (WL).

STARLINGS

European Starling / Étourneau sansonnet *Sturnus vulgaris* (P)

A year-round resident whose numbers are augmented by migrants and overwintering flocks, especially in Pond Cove and Westport. Migrants arrive in September-October and in early to mid March into May. Historically, probably no more than 10 pairs nested in Westport and 20 on the island as a whole, but by 2021 this appears to be changing. It is now common to see flocks of 30-50 newly fledged immatures in early summer, most of which probably originated on the island, and it is also not uncommon to see flocks of a hundred or more birds during the migrations and in winter, some of which commute between Pond Cove and Westport.

Fig 34 Bohemian Waxwings crowded into a spruce-top on 19 December 2007. Photo: June Swift.

WAXWINGS

Bohemian Waxwing / Jaseur boréale *Bombycilla garrulus* (P)

Occasional (at least 10 records), sometimes in sizable flocks, in March-April and October-December when there are significant numbers on the mainland (Fig 34). There is not enough food on the island to sustain flocks through the winter (although CAH reported a flock of 25 on 13 January 2008) and even at more favourable times they seldom stay for long.

Cedar Waxwing / Jaseur d'Amérique *Bombycilla cedrorum* (P)

A summer resident (breeds) and a sparse spring and abundant fall migrant. The earliest spring record is 3 March and the last in fall 13 November. Forty at Northern Point on 6 June 2021 indicate a protracted arrival in spring. Numbers in fall are greatest in late August and September: many in Westport in early August 2006 (Laura Titus); 150+ on 3 September 1984; 120 at Northern Point on 24 September 2007; 300 at Northern Point on 12 October 2007; and 120 at Northern Point on 4 October 2015 indicate the timing and magnitude of the fall migration.

OLD WORLD SPARROWS

House Sparrow / Moineau domestique *Passer domesticus*

One hundred House Sparrows were counted on the Christmas count of 29 December 1958. In 1986, Tufts (p. 453) reported that although the population of House Sparrows was declining in Nova Scotia, "the small population of these birds on Brier Island has

remained fairly constant in recent years at 50-70 individuals." It is not clear that the overwintering population was that large since the 1950s, and it seems likely that peak numbers in the range 50-70 represented residents augmented by migrants (for example, six were seen arriving at Northern Point on 30 August 2001). We estimated 30-35 in Westport in November 2000 and there were 45, including many juveniles, there in October 2001. After that, numbers never exceeded 20, and the population was extirpated in 2009 as the result of a fire in Westport that destroyed a hedge providing shelter for the small remaining group. Although there were two males on territory in the spring of 2010, by late fall none could be found. A single female came to a feeder in Westport on 26 April 2012, and occasional individuals wandered to the island in 2014, 2017 and 2018, but none stayed. This is in line with large decreases of this species as documented in breeding bird surveys and CBCs throughout the province during the past 50 years.

WAGTAILS AND PIPITS

American Pipit / Pipit d'Amérique *Anthus rubescens* (ROM; P)

A regular migrant in flocks of 20 to more than a hundred, especially in the Pond Cove area, usually from mid April through May (earliest 3 March, latest 29 May) and in September-November (earliest 29 August, latest 14 December). There is one mid summer record: two in Pond Cove on 7 July 2018 (RBS). Some may linger in mild winters: at least sixteen times on CBCs in mid December; one on 2 February 1974; 6 in Pond Cove on 27 February 1992; 15 on 19 February 2001; and 20 there on 19 February 2002. Two in the ROM collection were taken on 26 and 28 October 1972 (Barry Kent MacKay).

FRINGILLINE & CARDUELINE FINCHES

Pine Grosbeak / Durbec des sapins *Pinicola enucleator* (P)

Until the mid 1980s, Pine Grosbeak was a regular fall migrant and sparse winter visitor. Since then, in accord with its status in the rest of the province, it has been uncommon and irregular. The 34 records in our database indicate spring arrival in late May (earliest 10 March) and fall arrival in October and November (earliest 11 October, peak early to mid November, latest 8 February).

Two were reported on 31 July 2013. More than 80 were on the island on 2 November 1974, and WL recorded 31 on 1 January 1970. There have been at least eight reports of this species in island CBCs since 1961, the highest numbers being 47 on 29 December 1961, 59 on 29 December 1968, and 51 on 23 December 1997.

Purple Finch / Roselin pourpré *Haemorhous purpureus* (P)

Common and ubiquitous, although breeding in only small numbers. Even though Purple Finches are regularly seen into late December, including on CBCs, most seem to leave the island in the depths of winter, returning mainly in April through mid May (earliest 10 March). Early fall migrants appear at Northern Point in late August (for example, more than 150 from 29 August-1 September 1975), but the peak of migration is during the first two weeks of October, extending into early November (latest 30 November).

House Finch / Roselin familiar *Haemorhous mexicanus* (P)

House Finches now breed as close as Yarmouth and Digby, sporadically elsewhere in the province east to Halifax and across southern New Brunswick. Despite this, there were only about 15 records for the island until 2017, many at feeders in Westport, and mainly in March-May and August-October, for example: three on 5-20 April 1981 (1981. Nova Scotia Birds 23(3): 20); two males on 1 May 1982 (1982. Nova Scotia Birds 24 (3): 22); a male on 2 March 1986 (LAL); a male on 28 August 1991 (Margaret Clark); a female in spring 1994 (1994. Nova Scotia Birds 36 (3): 22); one captured at sea off the island and released on land on 25 September 1999 (BLM); 13 April 2001 (CAH); one on 12 October 2002; a female, 13 May 2006 (CAH), a female, 24 August 2006 (Doug McRae); a male, 24 May 2008 (Jeanette Denton); 2, probably immatures, on 9 October 2010 (Ken McKenna *et al.*, Fig 35); a singing male on 9-10 April 2011; a singing male in Westport on 8 May 2015. Thereafter through 2020 there have been annual records on nine or more occasions in May, August and September, including a bright male with a Blue Grosbeak in Westport on 5 May 2018.

Red Crossbill / Bec-croisé des sapins *Loxia curvirosta* (P)

This has been the less common of the two crossbill species on the island. Most reports of this erratic, irregularly occurring species have been between the middle of August and the end of December,

Fig 35 One of two immature House Finches in Westport on 9 October 2010. Photo: Judy O'Brien.

but there are also records in January, April, May, June and July. Although there is no firm evidence of breeding there it may occur at least occasionally, as suggested by the presence of an adult and two juveniles at David Pugh's feeder on the outskirts of Westport in July 2007.

White-winged Crossbill / Bec-croisé bifascié *Loxia leucoptera* (P)

Outnumbering Red Crossbill about 3:1 in number of occurrences, this species has been reported occasionally from January through May but especially from mid July through December, peaking from late August-October, sometimes in significant numbers, for example, an estimated 384 on the CBC of 18 December 1984, 300 on 22 July 1987, "hundreds" from 11-13 October 1997, and many reports during the early fall and winter of 2021.

Pine Siskin / Tarin des pins *Spinus pinus* (P)

A common migrant, although in varying numbers from year to year, beginning in late April through May, but especially in fall (earliest 10 July, peak often in October/November). Many appeared on the island in an unusual arrival during the last few days of May 2005, peaking at about 400 in Westport on June 1 (down to 50 the next day), but smaller numbers have arrived at Northern Point in April and in late May in other years, and WL recorded 300 on 15 March 1970. Linked with the passage of cold fronts, and unprecedented in our experience, hundreds appeared on the island about 10 October 2008, peaked at 10,000+ on the 12th, and remained very abundant through the 19th. Siskins have been recorded on CBCs on at least 18 occasions between 1971 and 2020, and during

a province-wide arrival of thousands in October 2020, flocks of up to 150 were reported feeding on weed seeds in the Westport area.

American Goldfinch / Chardonneret jaune *Spinus tristis* (P)

A very common migrant, especially in fall, and a breeder in modest numbers. Although a few may overwinter at feeders, there is a clear spring arrival throughout April and even into May. Post-breeding birds, some of them local migrants, gather in flocks in alders along the roads in late August and September; they are augmented by migrants from greater distances from about the end of September through mid November (peaking usually in mid October, but arrivals are irregular from year to year). Numbers may be impressive in fall, for example, 1000+ from 27-29 September 1986 (Shirley Cohrs) and 400 on 26 September 2020. A flock of about 200 along the Lighthouse Road on 31 August 2014 was unusual for the date, as were 200 on 29 August 2018, and more than 150 in flocks all over the island in late August 2020.

Common Redpoll / Sizerin flamé *Acanthis flammea* (P)

An irregular, irruptive winter visitor (earliest 13 October, latest 22 May), usually in small numbers (flocks of under 100) feeding in alders along the roadsides. Larger numbers have been present in the irruption years, for example 1964, 1968, 1972, 1986, 1989, 1997, 2007 and 2008 but apparently not in 2020-2021. There is no information on the presence of the larger, more northern *A. f. rostrata* during peak years, although it was seen regularly on the mainland among the smaller and more abundant *A. f. flammea* during the winters of 2007 and 2020-2021.

Hoary Redpoll / Sizerin blanchâtre *Acanthis hornemanni* (P)

Six records: two large white Hoarys, likely *A. h. hornemanni*, among Common Redpolls on Northern Point 21-23 December 1986; a small female, likely *A. h. exilipes*, seen at very close range at a feeder in Westport on 27 December 2004; a single bird (unspecified race) at another Westport feeder on 18 December 2007 (RBS); one reported in Pond Cove in late January 2013 (Laura Titus); one *exilipes* during the CBC of 16 December 2014, and another, photographed, during the CBC, 16 December 2015.

Evening Grosbeak / Gros-bec errant *Coccothraustes vespertinus*

In common with other budworm-dependent species, Evening Grosbeaks became scarce beginning in the mid 1980s. Until those

years, they were common migrants in May (earliest 12 April) and from early October through November, often being present on Christmas counts in December. After that, until a modest increase beginning in 2011, they were mainly sparse spring migrants during the last half of May and even less common fall ones in mid October. "Several flocks" were reported on 5 November 2007 (CAH). A male and female were at David Pugh's feeder on the outskirts of Westport for several days in early July 2007. Beginning in May 2011, a few have been seen most years, mainly in May and October, 41 were reported on 30 November 2018, and small numbers were reported on the CBCs of 2012, 2018 and 2020.

LONGSPURS AND SNOW BUNTINGS

Lapland Longspur / Bruant lapon *Calcarius lapponicus* (P)

Regular but not abundant from mid September into December (earliest 14 September, peak mid October to early November, latest 23 December with an undocumented report from 2 February 1974); only two spring records, 10 March 2016 and 15 April 1978. In general, longspurs most often associate with flocks of Horned Larks and Snow Buntings in the dune grass of Pond Cove. Flocks of 100 on 26 October 1993 (1994. *Nova Scotia Birds* 36 (1): 31) and about 60 in Pond Cove on 11 November 2006 (RBS) were unusually large.

Snow Bunting / Bruant des neiges *Plectrophenax nivalis* (NSM, ROM; P)

Regular in late fall and winter into mid April, although variable in timing and numbers. Flocks of a few up to 100 are the norm, but 300 on 7 November 1973 (IAM), 500 on the Christmas count of 29 December 1968, and 300+ on 29 October 1989 (Barbara & Eric Ruff), were exceptional. Fall arrivals usually begin during the last few days of October (earliest 17 October), numbers peak in November through early December, and a few may be expected throughout the rest of the winter into spring (latest 15 April). Pond Cove is the usual locus of activity, but migrants may arrive at Northern Point or Western Light before moving to other parts of the island. A specimen was taken on 12 November 1955 (collector listed as A.L. Welch) and two on 26 October 1972 (Barry Kent MacKay).

WOOD-WARBLERS

Ovenbird / Paruline couronnée *Seiurus aurocapilla* (P)

Two very early records, 20 April 1961 and 28 April 1969 (WL), but mainly an inconspicuous migrant during spring in the last two weeks of May (earliest 13 May, latest 2 June) and during fall from the last week of August through much of September (latest 15 October). Banding records show that most days in September 5-15 or more were banded, including 14 quite late, on 30 September 1979. Twenty-nine banded on 28 August 2017 were exceptional.

Worm-eating Warbler / Paruline vermivore *Helmitheros vermivorum* (P)

Four records: one well documented in notes by Edgar Spalding at Northern Point, 17 May 1985; another on 13 October 2015 by SJF along the Northern Point Road; one reported by Russel Crosby on 18 May 2016; and one along the Lighthouse Road on 4 September 2021 (Logan Lalonde and Jake Walker).

Louisiana Waterthrush / Paruline hocheque *Parkesia motacilla* (P)

A rare vagrant. Only three records, including 19 April 1970 in Westport, 12 May 1996 in Westport (BLM – good documentation), and one captured and photographed during a banding operation on 1 September 1998 (LAL, PAC).

Northern Waterthrush / Paruline des ruisseau *Parkesia noveboracensis* (AU; P)

This is a common but inconspicuous migrant, almost always detected in the last few days of August and the first two weeks of September (earliest 18 August, latest 8 October), when it may be abundant. It is among the most commonly banded species on the island in fall. Banding records show that migration peaks during the last week of August and continues at a low level through most of September. The few spring records are all in the last ten days of May except for one on 28 April 1969 reported by WL and one on 4 May 2018. The scarcity of sight records in both seasons, considering the abundance of this bird as a breeder to the north in New Brunswick and to the northeast in mainland Nova Scotia, Cape Breton Island, and Newfoundland, is accounted for by the skulking habits of this species, as the banding records indicate. There is a specimen from 22 September 1984.

Golden-winged Warbler / Paruline à ailes dorées *Vermivora chrysoptera* (AU; P)

A very rare vagrant. One was banded on 1 September 1979. Later records include one banded and photographed on 25 August 1980, one on 17 May 1985 (Edgar Spalding), one on 6 May 1993 (Peter MacLeod, RBS), and one on 20 September 1999 (no details). A specimen was taken on 3 September 1979 (CC).

Blue-winged Warbler / Paruline à ailes bleues *Vermivora cyanoptera* (P)

About ten records of this rare vagrant, all between 27 August and 6 September except for a male, well documented on 11 May 1996 (BLM et al.); an undocumented individual on 18 May 2003 (FLL *et al.*); one heard on 21 May 1995 (RBS); and one (undocumented) in the Pond Cove area on 29 September 2000 (Murray Newell). There are two banding records, 1 September 1979 and 4 September 1982 and one was photographed on 30 August 2014 (Alix d'Entremont). On the island, as in Nova Scotia as a whole, this is among the most consistent of early fall overshooting species.

Prothonotary Warbler / Paruline orangée *Protonotaria citrea* (NSM; P)

Rare vagrant. Six records: in Westport, 23 August 1973; 6 May 1993; 6-10 May 1997 (CAH, RBS); 2 June 2007 (CAH); a moribund bird found on a whale tour off the island on 24 or 25 August 2009 (photographed; specimen now in NSM); and one reported, undocumented, from Westport on 30 August 2009 (Linden Thurber).

Black-and-white Warbler / Paruline noir et blanc *Mniotilta varia* (P)

A sparse breeder and a regular spring and fall migrant. In spring, migrants appear through May (earliest 29 April); fall migration is protracted, beginning in early August, peaking during the first week of September, and extending through the end of that month (latest 19 October). Breeding pairs are hard to find, but in general they favour high and relatively dry areas of deciduous cover with large red maples and birches.

Tennessee Warbler / Paruline obscure *Leiothlypis peregrina* (P)

Formerly a common migrant in mid to late May and an abundant one from mid August into early September (latest 24 October).

Throughout the 1970s and '80s, this was among the most abundant of fall migrant warblers. But with the decline of spruce budworm populations in Eastern Canada, the number of observations declined drastically until increasing modestly in 2008-2009 to the present. Our database shows 53 observations between 1969 and 1984 and about 27 since then, indicating the magnitude of its decline in abundance and the recent increase. Banding records show the same decline: 94 birds were banded during a two-day period in late August 1980, but only two during three weeks in late August–early September 2010. Late-arriving birds were singing on the island on 11 June 2010 and 11 June 2011.

Orange-crowned Warbler / Paruline verdâtre *Leiothlypis celata*

There are only four spring records, 10 May 1968 (IAM), 24 May 1970 (WL), 11 May 1975 (Larry Neily), and 26-28 April 2002 in Westport. In fall there is one late August report and several in September (any record of this species in eastern North America before October is suspect in some circles) and at least sixteen records in the period 1 October-22 November. One was found on the CBC of 14 December 2016. To date, all have been assignable to the eastern race *O. c. celata*, although any late fall birds in future should be checked over for western races, especially *O. c. orestera*, which occurs occasionally in late fall and early winter on the mainland (McLaren 2012, p. 123).

Nashville Warbler / Paruline à joues grises *Leiothlypis ruficapilla* (AU; P)

A regular and sometimes common migrant, especially in fall. Breeds occasionally, as this species does on Long Island and Digby Neck. Atlasing on Brier Island revealed singing males in June in regenerating cut-over areas. Spring migration records cluster in the last half of May (earliest 9 May, latest 11 June). In fall the majority of records is between the last week of August and the first week of October (earliest 5 August, latest 11 November). Banding records extend quite evenly from late August and early September to late September and early October, indicating a constant and protracted migration. The exceptional number of 300 was reported from the island during an NSBS field trip from 11-13 October 1997. A specimen exists from 4 September 1983.

Connecticut Warbler / Paruline à gorge gris *Oporornis agilis* (AU; P)

Although Tufts (1986, p. 380) refers without details to fall records from Brier Island, there are only eight records of this skulking late migrant (vagrant in our area), five of them during banding operations: 20 and 30 September 1979 (Ross Anderson); 28 September 1980 (Ross Anderson; photographed); 5 October 1980 (Ross Anderson); and 3 September 1989 (LAL). There is a specimen from 15 October 1979 (CC), and two undocumented reports, 15 September 1991 (Ken McKenna and Clarence L. Stevens) and 30 September 2004.

Mourning Warbler / Paruline triste *Geothlypis philadelphia* (AU; P)

A scarce but regular migrant, probably detected infrequently because of the extent of heavy ground cover on the island. Most sight records fall in the last week of August and first week of September (latest 12 October), although banding records are rather evenly distributed from the last week of August to the end of September (none in October). There are spring records on 24 May 1970 (WL) and 24 May 1976, also one in summer on 31 July 1974. Specimens date from 10 September 1971 and 14 September 1985.

Common Yellowthroat / Paruline masque *Geothlypis trichas* (AU, CMN; P)

A very common breeding summer resident and spring and fall migrant. Spring migration peaks during the last two weeks of May (earliest 30 April). Fall migration is under way during the last week of August until well into October (latest 26 November). Two hundred were estimated from 10-12 October 1998 (FLL *et al.*). A specimen of a lighthouse-killed bird, 24 May 1971, is in AU (ELM).

Kentucky Warbler / Paruline du Kentucky *Geothlypis formosa* (CMN)

A very rare vagrant. Only four records: 27-28 August 1975 (BMT); a road-kill corpse (now in CMN) September 1978 (IAM); 28 August 1984 (Edgar Spalding); and a male in Westport, well documented, 24 May 1997 (BLM).

Hooded Warbler / Paruline à capuchin *Setophaga citrina* (AU; P)

A very rare vagrant in spring and fall. Eleven records in April-May and August-September, all of single birds: dead on

12 April 1974 (WL, dated 25 May in Acadia collection); 30 August 1975 (C.R.K. Allen); 29-30 August 1976 (BMT); 18 May 1997 (m.obs.); 12 September 1998 (Cathy and Allan Murrant); 30 August 2001 (banded and photographed at Northern Point); 12 September 2002 (undocumented, Linden Thurber); an adult male banded and photographed on 1 September 2004 (LAL); one in a ditch in Westport on 1 April 2005 (Sean McDormand, Laura Titus); another aboard a whale tour boat on 28 May 2005 (Laura Titus); and an immature at Northern Point on 28 August 2016 (Ron d'Entremont and Jake Walker). A very late, well-described adult male was at a feeder in Westport on 18 November 2017 (Lisa Clark), still present two days later (David Bell).

American Redstart / Paruline flamboyant *Setophaga ruticilla* (P)

An abundant breeding species and common migrant. Spring migration peaks during the last ten days of May (earliest 10 May). In fall, the first local migrants begin to appear around the end of the first week in August, but migration peaks late that month and during the first week of September (for example, 70 on 6 September 1971) and extends only to the middle of that month (latest 18 October). Birds on breeding territories are most common in alder thickets bordering spruce stands.

Cerulean Warbler / Paruline azure *Setophaga cerulea* (P)

Probably six records of this rare vagrant, the first three mentioned in Tufts (1986, p. 373), including the first spring record, 24 May 1970 (WL). A female was banded and photographed on 30 August 1999 (LAL *et al.*). The most recent were an immature female seen briefly at Northern Point on 30 August 2001 and a female seen in Westport on 20 May 2017 (ELM),

Blackburnian Warbler / Paruline à gorge orange *Setophaga fusca* (P)

A regular but not abundant migrant in the last half of May (earliest 12 May, latest 15 June) and late August-mid September (latest 10 October). Twenty on 4 September 1999 were unusual (ELM, BLM).

Northern Parula / Paruline à collier *Setophaga americana* (AU; P)

A common spring and less abundant fall migrant; breeds in low numbers. Spring migrants occur through most of May (earliest 29 April), peaking in mid to late May (latest 6 June). Fall migrants

appear early, as indicated by one banded on 9 August 1981 and two other banding records late in the third week of August. Migration peaks in early September, but there are records into November (latest 18 November). One specimen was obtained in June 1970 (WL).

Yellow Warbler / Paruline jaune *Setophaga petechia* (AU; P)

A common spring and fall migrant, also a common breeder. Most extensive alder thickets have at least few pairs nesting from late May into August. The first spring migrants appear in early to mid May, but there are some exceptionally early arrivals, for example 28 March 1965 and 15 April 1973 (Tufts 1986, p. 354). Fall migration begins early, judging by observations at Northern Point in early to mid August, and peaks during the last week of August and the first week of September. Migrants continue to appear in low numbers through September (latest 26 October). One specimen was obtained in September 1973 (WL).

Chestnut-sided Warbler / Paruline à flancs marron *Setophaga pensylvanica* (AU, CMN; P)

A common spring migrant; somewhat less abundant in fall. The peak in spring is during the last week of May (earliest 7 May) and during fall the last week of August and the first week of September (earliest 14 August; latest 17 November). Present on Long Island and Digby Neck during breeding season, there is no direct evidence of nesting there or on Brier Island. A few June and July records on the island suggest that breeding may occur at least occasionally in the limited areas of suitable habitat. There are three specimen records, 24 May 1971 (ELM), September 1973 (WL), and 5 September 1983 (ELM).

Magnolia Warbler / Paruline à tête cendrée *Setophaga magnolia* (AU, CMN; P)

A common migrant and breeder. Although often inconspicuous as a breeder, it is widespread from June through August in mixtures of spruce and alder. Spring migrants are most abundant during the last week of May (earliest 28 April); in fall the peak of migration is about the middle of September (earliest 14 August, latest 19 October). Banding records extend from the last two days of July throughout early August into fall. A lighthouse victim was collected on 24 May 1971 (ELM).

Cape May Warbler / Paruline tigrée *Setophaga tigrina* (AU; P)

In parallel with Tennessee Warbler, this species was a regular spring migrant (in the last two weeks of May; earliest 11 May) and an abundant fall one until the late 1980s. After that it became decidedly an event to see more than one bird a day. During its glory days sometimes hundreds of birds a day were seen, centered on 1 September (earliest 2 August, latest 17 October). This species declined somewhat later than the Tennessee Warbler but its abundance is also very likely linked to spruce budworm populations in Eastern Canada. It began to increase again in 2014, apparently in response to increased budworm populations, peaking at 100 at Northern Point on the morning of 1 September 2017 and 150 on 1 September 2019. There is a specimen from 25 September 1976 (Peter C. Smith).

Black-throated Blue Warbler / Paruline bleue *Setophaga caerulescens* (AU, CMN; P)

Breeds on Digby Neck, but on Brier Island it is an uncommon migrant, mainly during the last week of May (earliest 12 May), peaking in fall during the last two weeks of August through the first week of September. From its peak, the fall migration of this species extends through the first half of October, indicated by numerous banding records through September and the first half of October (latest 19 October). One on 11 April 1981 (WL) was exceptionally early. A female at the foot of the Camp Road on 26 November 2006 was exceptionally late (IAM). At least one specimen exists, undated (WL).

Yellow-rumped Warbler / Paruline à croupion jaune *Setophaga coronata* (AU, CMN; P)

A common breeding species and very common migrant, especially in fall. All so far have been the eastern *D. c. coronata* (Myrtle Warbler). The first spring arrivals are usually during the third or fourth week of April (for example, hundreds on 28 April 1969, WL), although migrants are still passing through with other warbler species into the last week of May. In fall, migrants are obvious among other species in late August and early September, but truly impressive arrivals occur in the first two weeks of October, coinciding with the passage of cold fronts, for example, 1000+ on 8 October 1983 and 7 October 1984, 800 on 16 October 1988, 1200

on 18 October 1996 (IAM), 3000 reported from 11-13 October 1997, 6000 estimated from 10-12 October 1998 (FLL *et al.*), 200+ on 12-13 October 2002, 500+ on 1 October 2006, 300+ on 11 October 2008, 400 on 28 September 2013, and 500 on 6 October 2018 (these estimates were made mainly at Northern Point in the early morning). A few occur through November, and, during milder winters when bayberries have been available, some have been found on CBCs. A lighthouse kill was salvaged on 24 May 1971 (ELM).

Black-throated Gray Warbler / Paruline grise *Setophaga nigrescens*

One sight record, undocumented, on the unusually early date of 1 September 1975 (Lisë and Shirley Cohrs). Elsewhere in the province, this species is a late fall vagrant.

Black-throated Green Warbler / Paruline à gorge noire *Setophaga virens* (P)

With American Redstart, Yellow-rumped Warbler and Common Yellowthroat, the commonest breeding wood-warbler on the island. Also a very common migrant, peaking in spring during the last half of May (earliest 6 May). Movements of local birds and migrants overlap. Banding records indicate a peak in local birds in late August and early September. Migrants appear to peak in the last half of September and are irregular to mid October (latest 10 November). Numbers in fall may be impressive, for example, 100+ seen on 4 September 1999.

Bay-breasted Warbler / Paruline à poitrine baie *Setophaga castanea* (AU; P)

Like Tennessee and Cape May Warblers, this budworm specialist was abundant in both spring and fall migrations until the mid 1980s. Spring records extend from 8 May to 1 June. From the mid 1980s until 2016 it was regular but sparse, primarily during the last week of August (the earliest banding record is 31 July, although banding records are few before 12 August; the latest is 4 November). Numbers began to increase in 2016 and peaked in 2017. This corresponded to a new outbreak of spruce budworm in eastern Québec. 25+ were present in migration at Northern Point on the morning of 1 September 2019. Specimens: 24 May 1976 (CC), 1 September 1979, and 20 September 1980, all in AU.

Blackpoll Warbler / Paruline rayée *Setophaga striata* (AU; P)

Formerly (up to about 2016) a sparse breeder, and a few pairs may still nest. A very abundant migrant, especially in fall. Spring arrivals are in the last half of May (earliest 6 May). In fall, migration begins in the last week of August, with a second, larger, peak, probably of immature birds, during the first two weeks of October (400+ estimated from 11-13 October 1997; latest 13 November 2003, Patricia Chalmers). In June and July, breeding pairs were found in areas of heavy scrubby spruce along Gull Rock Road, the meadow along Lighthouse Road, Pea Jack Road, and the end of the Camp Road. As of 2020, several of these areas no longer have males singing on territory. A lighthouse kill, now in AU, was collected on 24 May 1971 (ELM).

Pine Warbler / Paruline des pins *Setophaga pinus* (P)

Reported increasingly as a breeder on the mainland. There are four spring records on Brier Island: one at David Pugh's feeder on 27 April 2005; a singing male in Westport on 9 May 2008; one on 2 June 2015; and a singing male along the Lighthouse Road, 2 June 2020. Several more have been observed in fall, in accord with records on the mainland: 25 November 1984; 31 October 1996 (IAM); 20 August (IAM) and 7 October 2001; early September 2002 (Linden Thurber); 1 October 2005 (FLL); 1 November 2006; 16 November 2013; 11 November 2019 (Jake Walker); and 26 September and 11 and 24 October 2020. Fall birds, inconspicuous late-fall strays from west and south of us, are probably under-reported.

Yellow-throated Warbler / Paruline à gorge jaune *Setophaga dominica* (P)

A rare spring overshoot, usually in April and early May, and fall reverse migrant, usually in September and October (occasionally in late August, for example 21 August 2015 with other warblers along the Camp Road). One on 30 April 1983 was white-lored and thus probably of the more western subspecies *S. d. albilora* of the Alleghenies and Mississippi Valley. No details seem to be available of the other spring records, 6-7 May 1984 (Tufts 1986, p. 365) ca. 21-29 May 2005.

Prairie Warbler / Paruline des prés *Setophaga discolor* (P)

A sparse but regular vagrant, as in the rest of the province. The twenty-three Brier Island records in our database fall between 18 August and 10 October, but later autumn records are certainly to be expected. Five have been banded: 21 September 1979, 5 September 1982, 28 August 2001, 18 August 2015, and 3 September 2021.

Palm Warbler / Paruline à couronne rousse *Setophaga palmarum* (P)

A sparse spring migrant but very common in fall, beginning in late August but peaking in early October with the large arrivals of Yellow-rumped Warblers. Spring migrants appear in numbers during the last week of April (earliest 6 April) and continue in low numbers to the end of May (latest 22 May). In fall, numbers do not match those of Yellow-rumps, but can be noteworthy: 50+ on 7 October 1984; 1000+ estimated from 11-13 October 1997; 1000 estimated from 10-12 October 1998; and 100+ on 8 October 2000. November records are not unusual and there has was one on a CBC, 21 December 1971. In general, the early fall migrants are eastern "yellow" Palms, while the proportion of the more northwestern "western" Palms increases during September and October (banding records show that the first "western" was recorded on 20 September). An eastern bird was photographed on 25 September 2004 (RBS; 2005. *Nova Scotia Birds* 47(1): 29). Breeding is possible – three singing males were detected in the interior of the island during a survey in June 2015 (*fide* John Brazner).

Wilson's Warbler / Paruline à calotte noire *Cardellina pusilla* (AU; P)

A regular but not abundant migrant, peaking in spring during the last ten days of May (earliest 12 May, latest 11 June) and in fall during the last week of August and the first week of September (latest 15 October). Thirty on 4 September 1999 were unusual (ELM, BLM). Two were detected SW of the Big Meadow Bog during a survey in June 2015 (*fide* John Brazner), so breeding is possible but has not been confirmed. A lighthouse-kill was taken as a specimen on 24 May 1971 (ELM) and there is another specimen from 4 September 1982.

Canada Warbler / Paruline du Canada *Cardellina canadensis* (CMN; P)

An uncommon migrant, in spring during the last week of May (earliest 28 May, latest 8 June) and in fall mainly in the last two weeks of August (latest 18 October 1958, WL). Singing males were discovered in the moist scrubby margin just east of the Big Meadow Bog in June 2015 (*fide* John Brazner); although Canada Warbler is a sparse breeder on Long Island and Digby Neck, breeding has not been confirmed on Brier Island.

CHATS

Yellow-breasted Chat / Paruline polyglotte *Icteria virens* (AU, NSM; P)

A regular but usually scarce fall vagrant between late August and mid October (earliest 14 August, latest 7 November). Probably more abundant than the sight records indicate, because there are more than 25 banding records during the fall period. There is only one spring record, 22 May 1994 (1994. *Nova Scotia Birds* 36 (3): 19). Specimens were taken on 5 November 1960, 1 October 1961, and in late September 1967 (WL).

EMBERIZIDS

Eastern Towhee / Tohi à flancs roux *Pipilo erythrophthalmus* (NSM; P)

A scarce migrant, usually in May (earliest spring record 9 April) and September-October (earliest fall record 1 September, latest 3 November). One found in Westport in December 1987 over-wintered and was heard singing on 17 April 1988 (RBS). Specimens were taken by WL on 5 October 1960 and 10 and 29 October 1961 (one of a group of seven on the last date).

American Tree Sparrow / Bruant hudsonien *Spizelloides arborea* (P)

Winters in highly varying numbers on the island, usually in twos and threes, arriving mainly in mid to late November and departing by the last week of April. One at David Pugh's feeder on the outskirts of Westport on 10 May 2008 was exceptionally late.

Field Sparrow / Bruant des champs *Spizella pusilla* (P)

A migrant in low numbers in April-May (earliest 30 March, latest 19 May) and from early October to mid November (earliest 31 August, latest 18 November). Two at a Westport feeder from 6-9 May 2004 were closely studied and photographed because one appeared paler and grayer than the other, perhaps being of the western subspecies *S. p. arenacea*, although as IAM wrote in an analysis, because of its overall coloration and the brown postocular streak "perhaps it was from some intermediate area between the eastern and western forms, which are really only extremes in what may be a 'cline' of geographical variation" (2004. Nova Scotia Birds 46 (3): 22, 24, Fig 36).

Chipping Sparrow / Bruant familier *Spizella passerina* (P)

A common migrant in spring and fall and an occasional breeder in low numbers. Spring migrants appear in late April (earliest 13 April), peaking in May; 20 in Westport on 10 May 1968 and 7 May 2004 were exceptional for spring. A late migrant arrived on the island on 11 June 2010. The fall migration is protracted: first migrants appear in late August and migration extends into October. One hundred on 5 October 1968, 150 on 13 October 1985, 60 on 15 October 1988, 200 on 18 October 1996 (IAM, BLM), and several hundred on 16-17 October 2005, with 50+ at feeders on 22 October (CAH, ELM), indicate that the main period of migration is in that month. It is not unusual to see a few throughout November and on CBCs in mid December. Migrants were photographed on 23 May 2005 (RBS; 2005. *Nova Scotia Birds* 47(3): 43).

Fig 36 A grayish Field Sparrow, one of two together in Westport on 7 May 2004. Photo: Richard Stern.

Clay-colored Sparrow / Bruant des plaines *Spizella pallida* (P)

A scarce fall vagrant, especially in October. The first was found on 15 October 1988 (SIT). Records include a fall adult at Northern Point, 28 October 2003; an adult in Westport, 30 October 2004; an immature among Chipping Sparrows at Northern Point, 3 November 2006; a fall adult at Northern Point on 25 September 2012; others at Northern Point or Western Light on 22 October 2012, 29-30 September 2014, 23 October 2015; 24 September 2017 and 29-30 September 2019, also one near Whipple Point on 29 August 2018 (Jake Walker).

Vesper Sparrow / Bruant vespéral *Pooecetes gramineus* (KU; P)

First recorded when the Kansas ornithologist N.S. Goss took a specimen on 19 April 1880. A scarce migrant in April-May (earliest 11 April, latest 24 May) and in October-November (earliest 11 August – perhaps a post-breeder from the mainland; latest 11 November), usually in low grass meadows along shores. "About eight" on 4 September 1997 were both early and in unusual numbers (John & Shirley Cohrs *et al.*).

Lark Bunting Bruant noir et blanc *Calamospiza melanocorys* (AU)

Four records. First recorded for Nova Scotia and Brier Island by Willett Mills and Harrison Lewis on 13 September 1955 in Pond Cove. The second, on 27 May 1967, was collected (WL). There are two further records, one (undocumented) on 25 May 1980 (Robbie Denton and Tony Glavin), and a male near Northern Point on 17 May 1985 (well documented by notes, Edgar Spalding, SIT).

Lark Sparrow / Bruant à joues marron *Chondestes grammacus* (P)

A regular but scarce migrant, mainly from late August into October (earliest 25 August, latest 30 October), but certainly to be expected along roadsides and in dry gravelly areas in September through October. The first Lark Sparrow reported from the island was seen on 17 September 1959 (WL), and there are at least two spring records, 5 May 1973 (WL), and 21 May 1995 (RBS, photographed).

Bell's Sparrow / Bruant de Bell *Artemisiospiza belli* (P)

One record only of this extremely rare southwestern vagrant, the first and only for Nova Scotia, on 13 November 1994 along

Fig 37 Nova Scotia's first and only Bell's Sparrow, found and photographed along the Lighthouse Road on 13 November 1994. Photo: Bernard Forsythe.

Lighthouse Road (found and photographed by Bernard Forsythe – see Forsythe 1995 and Fig 37). Originally assigned to the Sage Sparrow *(Amphispiza belli*), in 2013 the AOU Checklist Committee (Chesser *et al.* 2013) split this species into two species, the Sagebrush Sparrow (*Artemisiospiza nevadensis*) and the mainly California coastal Bell's Sparrow (*Artemisiospiza belli*). Remarkably, the Brier Island bird is attributable to Bell's Sparrow. McLaren (2012, p. 209) mentions that this bird in some ways resembled the non-migratory California subspecies *A. b. canescens*, but adds (*in litt.*) that it may have been within the range of variation of the migratory inland subspecies *A. b. belli*. Whatever its taxonomy, this is a remarkable record.

Savannah Sparrow / Bruant des prés *Passerculus sandwichensis* (P)

A very common migrant and a breeder in the limited areas of suitable habitat along the western shore of the island, especially in Pond Cove. Returning migrants of the mainland subspecies, *P. s. savanna*, appear mainly from mid April through mid May, usually peaking in the last week of April when they are common on lawns and at feeders (for example, more than 200 on 30 April 1998 and on the same date in 2000, CAH). Fall migration is less obvious but begins during the last few days of August, peaks in late September, and continues past the middle of October. A few linger into November and even to late December in mild years with little snow. The breeding subspecies of Sable Island, the Ipswich Sparrow, *P. s. princeps*, is a regular migrant in April (earliest 23 March,

latest 29 April) and October-November (earliest 9 October, latest 16 December), usually found in in Pond Cove, although occasionally at the Northern Light or Southern Point.

Grasshopper Sparrow / Bruant sauterrelle *Ammodramus savannarum*

Seven records of this skulking grassland sparrow, all but one undocumented: two on 7 November 1973 (IAM); one on the unusually early date of 31 August 1975 (John and Lisë Cohrs); one on 11 November 1989 (Bernard Forsythe); one in Pond Cove on 13 November 1996; one along the Lighthouse Road, 3 December 2000; one in Pond Cove during the CBC of 14 December 2017 (David Bell, Lucas Berrigan); and one along the Big Meadow boardwalk on 19 October 2018 (Jake Walker). Except for the August and December reports, these dates fit neatly into those typical of Grasshopper Sparrow occurrences on the mainland and Seal Island.

Nelson's Sparrow / Bruant de Nelson *Ammospiza nelsoni* (P)

A scarce migrant, mainly from late September into November (earliest 21 August, latest 13 November). Three spring records, 24 May 1970 (WL), 13 June 2018, and 15 June 2019, plus one in summer, 10-12 July 2016, all in the southern saltmarsh area of the Big Meadow Bog, suggest breeding, but it was not detected during searches in summer 2021 (John Brazner, ELM). All records but two were of the coastal *A. n. subvirgatus*; one on 13 November 1998 (IAM) and another photographed on 19 October 2018 (Jake Walker) resemble *A. n. alterus* of the James Bay region. Habitat for this saltmarsh sparrow on Brier Island is very limited, providing very little cover for migrants or for breeding. Despite this, it is surprising that there are so few records in fall (about 10) and only three in spring, perhaps a function of observer bias rather than dearth of occurrences.

Seaside Sparrow / Bruant maritime *Ammodramus maritimus* (NSM; P)

Two records, the first a well documented bird by a single observer, in suitable grass-marsh habitat alongside the big pond in Pond Cove, 9 October 1971 (ELM). A road-killed bird found by Sylvia Fullerton on Water Street, Westport, next to the saltmarsh, on 16 October 2016, was also identified as one of the expected northern subspecies, *A. m. maritimus*.

Lincoln's Sparrow / Bruant de Lincoln *Melospiza lincolnii* (AU; P)

A moderately common but inconspicuous migrant, mainly during the last ten days of May (earliest 10 May), and during a more protracted period in September and the first half of October (earliest 19 August, peak late in September, latest 26 October). Two on 22 April 1973 (Tufts 1986, p. 411) were exceptionally early. There is a specimen from 27 September 1973.

Song Sparrow / Bruant chanteur *Melospiza melodia* (P)

A very common breeder and migrant. A few to several overwinter most years, mainly in Westport. Migration depends on the vagaries of migration weather, particularly SW winds in spring and the passage of cold fronts in fall. Spring arrivals begin in March but center on the first week of April. Several hundred migrants beginning 24 March through 31 March 2002 (CAH, ELM) were earlier than average. Fall migration is protracted; birds begin to move during the first week of August, peak in mid October, and continue into the first week of November. The volume of fall migration can be impressive, for example, 300+ were along the Lighthouse Road with other migrants before dawn on 12 October 2008.

Swamp Sparrow / Bruant des marais *Melospiza georgiana* (CMN; P)

Breeds in moderate numbers, mainly in wet grasslands with brush in the Pond Cove, Lighthouse Road meadow, and Big Meadow areas. Also a common migrant during the last half of April through mid May (earliest 9 April) and from early September through October (earliest 17 August, peak in early October, latest 30 November). Most years a few linger into late December.

Fox Sparrow / Bruant fauve *Passerella iliaca* (P)

Breeds sparsely along the Atlantic coast of SW Nova Scotia, but on Brier Island only a regular migrant in low numbers in spring (earliest 21 March, peaking about 15 April, latest 29 April) and fall (earliest 29 September, peaking in mid October, latest 11 November). Occasional individuals remain later at feeders in Westport, usually not later than late December. Fourteen found during the CBC of 14 December 2018 were unusual, and WL recorded one on 1 January 1970. One in Westport on 27 February 2004 was overwintering (JUF).

White-throated Sparrow Bruant à gorge blanche *Zonotrichia albicollis* (P)

A common breeder and very abundant migrant. Small numbers may linger into winter and an occasional individual or small group may overwinter at Westport feeders. Spring arrivals usually begin in early April (earliest 26 March), peak about 30 April, and continue past the middle of May. Local migrants, often with juveniles, appear during the last week of August, but the peak of migration coincides with that of many other sparrows in mid October, when numbers may be high, for example, 1000+, mainly along the Lighthouse Road, before dawn on 12 October 2008.

White-crowned Sparrow / Bruant à couronne blanche *Zonotrichia leucophrys* (P)

A moderately common migrant in May (earliest 3 April, peak about 10 May, latest 31 May) and October (earliest 25 September, peak about 10 October, latest 19 November). During a remarkable fallout, 530 were seen on 12 May 1996, and 50 were scattered all over the island on 19 October 2018. Most birds reported have been of the eastern-breeding *Z. l. leucophrys* (Fig 38), but an adult of the more westerly *Z. l. gambelii* was seen on 10-11 May 1986 (James McLaren, IAM), another was seen on 17 October 1996 (IAM), and one was photographed in Westport on 9 May 2004 (RBS).

Dark-eyed Junco / Junco ardoisé *Junco hyemalis* (P)

A widespread, although not abundant, breeder and a very common migrant, especially in fall. A few always linger into December, and occasional individuals or small groups may overwinter at feeders

Fig 38 An eastern White-crowned Sparrow in Westport on 23 May 2008. Photo: Eric Mills.

in Westport during mild winters. The migration of juncos usually peaks in mid to late April (earliest 11 March) and in mid October (occasionally to mid November). The timing of arrivals is highly weather-dependent – for example, hundreds arrived overnight on 30-31 March 2002 and 150+ on 20-21 April 2007 on southerly winds. In fall, arrivals are similarly weather-dependent – hundreds arrived on the night of 30-31 October 2007 on northwesterlies. Tufts (1986, p. 419) reports a count of 5000 on 10 October 1983, there were 1000+ scattered along roads at dawn on 29 October 2010, and "1000++" along roads on 8 November 2014, no doubt during similar weather. To date, all but one of the individuals reported from the island have been of the eastern subspecies, *J. h. hyemalis*; an "Oregon" Junco was reported, but not documented in Westport about 2 May 2011.

CARDINALS AND ALLIES

Summer Tanager / Tangara vermilion *Piranga rubra* (P)

About 25 records in all. A rare but regular overshooting migrant in spring (earliest 23 April, latest 5 June) but only two reports in fall, on 13 September 1971 (Jim and Jean Wilson) and in mid October. The first appears to have been one on 10 May 1970 (WL), followed by another on 24 May 1970. Thereafter, between 1983 and 2020 about 27 individuals were seen between 23 April and 5 June in 17 of the 37 years, and one immature was present (no details) from 13-16 October 1999. Three (two males and a female) on the island on 14 May 2011 were part of an unusual arrival of many in Nova Scotia that month.

Scarlet Tanager / Tangara écarlate *Piranga olivacea* (AU, NSM; P)

A regular spring and fall migrant in low numbers, usually during the last half of May (earliest 13 April) and from the last ten days of August through the third week of September (latest 20 October). Banding records are most abundant in the second and third weeks of September. Chamberlin (1881) reported the arrival of this species, along with other early overshooting species, on the island on 15 April 1881 after a spring storm. Specimens were taken on 13 April 1959 (WL) and 2 September 1984.

Western Tanager / Tangara à tête rouge *Piranga ludoviciana* (P)

Two records: one banded on 24 May 1980; and another banded and photographed on 22 August 1980 (P.C. Smith *et al.*).

Northern Cardinal / Cardinal rouge *Cardinalis cardinalis* (P)

During the period of our records, the Cardinal has gone from being an extreme rarity to a breeding species on Brier Island. The first Brier Island records were individuals on 23 May 1970 (WL), then 14 April and 10 November 1974. A major influx into Nova Scotia occurred in 1973-1974. Thereafter, occasional birds appeared on Brier Island in April, May and late fall until 2001, when cardinals became part of the regular avifauna of the island, although in very low numbers at first. Although claimed in 1991 (1992. *Nova Scotia Birds* 34(1): 31), breeding was firmly established on 29 July 1995 when a female with fledged young was seen along the Camp Road by Louise Garron (*fide* RBS), and in 2005 when fledged young were seen and photographed in Westport (JUF). Since then, a few pairs have nested in or close to the village. It appears that some of the Brier Island birds leave the island in winter (feeder birds in winter indicate that there is an overwintering population), and migrants have been noted in various places including Northern Point in April-May and late August through October-November.

Dickcissel / Dickcissel d'Amérique *Spiza americana* (NSM; P)

There are only three spring records, 19 May 1997, 20 May 2005 (RBS, photographed), and 19-20 May 2017. In fall, migrant Dickcissels are regularly detected by call between the last few days of August and the end of October (earliest 20 August, peak in early October, latest 13 November) as they fly over Northern Point. There are also records from all over the island, usually in Westport or along roads. In October 1963, the Lents reported that Dickcissels "have been heard or seen almost every day since early August" (1963. Nova Scotia Bird Society Newsletter 5 (3): 10). Most reports have been of single birds: 15 on 15 September 1965 (WL) and nine on 12 October 1969 were unusual. One was banded on 31 August 2013. There are two records from feeders in Westport in December, and in late February 2004 one spent a week at CAH's feeder. A specimen was taken on 14 October 1959 (WL).

Rose-breasted Grosbeak Cardinal à poitrine rose *Pheucticus ludovicianus* (NSM; P)

A regular migrant, sometimes common, in May and early September. Spring records range from 18 April to 30 May, usually peaking around the middle of May, sometimes later; in fall the

peak is in the first half of September, (earliest 22 August, latest 5 November). In a fallout on 12 May 1996, a remarkable 110 were seen. Two females and a male stayed at David Pugh's feeder in Westport into early July 2007, and "a few" were still at feeders in Westport on 5 November 2007 (CAH). WL took a specimen on 12 September 1959.

Blue Grosbeak / Guiraca bleu *Passerina caerulea* (P)

Blue Grosbeaks characteristically overshoot into Nova Scotia in April-May and reverse migrate to our area in October. Approximately 12 records of this species on the island fall into that pattern. In spring, records range from 19 April to 7 June; in fall the range is 22 September to 10 October. Most have been seen on roadsides, on lawns, or at feeders, in Westport (Fig 39).

Indigo Bunting / Passerin indigo *Passerina cyanea* (AU; P)

Like Blue Grosbeaks, Indigo Buntings characteristically overshoot in spring and reverse migrate to our area in fall but compared to that species usually arrive later in spring and in much larger numbers. Most of the approximately 80 records from Brier Island fall between 4 April and 30 May (earliest 16 March), peaking from late April-mid May in spring and from 26 September to 20 November in fall. A "late wave" on the island on 24 June 1962, reported by Madeline Lent, was well outside the usual dates, as was a singing male near Western Light on 3 July 2020 (James Churchill) Three immatures attempted to overwinter at a feeder in Westport beginning in mid December 2017, but their fate is unknown. Tufts (1986, p. 392) records the New Brunswick naturalist Montague

Fig 39 An immature male Blue Grosbeak in Westport on 15 May 2009. Photo: Richard Stern.

Chamberlain's report of a "remarkable flight" of the species to the island on 15 April 1881, from which he obtained specimens" (see also Chamberlain 1881). Specimens were also obtained on 10 September 1971 and 15 September 1983. One apparent nesting during the summer of 1990 (Erskine 1992, p.185; 1992. *Nova Scotia Birds* 33 (1): 26), when juvenile birds showed up at a feeder at the Lodge, has not been repeated.

BLACKBIRDS AND ALLIES

Eastern Meadowlark / Sturnelle des prés *Sturnella magna* (AU)

As the small Nova Scotian breeding population of this species has disappeared (as shown in breeding bird atlas records) so has its occurrence as a vagrant on Brier Island. Since 1978 there has been only a scattering of records, the only one in recent years a lone bird in Pond Cove on 6 September 2020 (James Hirtle, Diane LeBlanc). Earlier occurrences going back to 1963 indicate that most spring arrivals were from mid to late April (latest 25 May) and fall arrivals in mid October (earliest 15 September, latest 2-5 November). Two have been found on CBCs, 16 December 1964 and 20 December 1988 (the latter singing!). Seventeen on 22 October 1964 and 24 on 15 April 1967 (both WL) were exceptional in number though not by date. A specimen was taken on 22 May 1974 (WL). Any meadowlark on the island, especially in late fall or winter should be scrutinized carefully to exclude the possibility of Western Meadowlark, which is almost as likely as Eastern at that time of year.

Bobolink / Goglu des prés *Dolichonyx oryzivorus* (NSM; P)

A common migrant, in spring during the last two weeks of May (earliest 11 May, peak about 15 May, latest 26 June), and in fall in late August and early September (earliest 13 August, peak about 30 August, latest 12 October). There is one exceptional spring record, 13 April 2002 (CAH). In fall, many more birds are seen and heard in flight over the island, especially at Northern Point, than occur on the ground, but in spring singing males are regularly seen in the Westport area. Occasional records from mid summer (for example, a pair with two juveniles on 13 July 1982, Ian Kirkham) may be of post-breeding individuals, although breeding apparently did occur on the island or in Freeport on Long Island during the first Maritimes Breeding Bird Atlas, 1986-1990. A specimen was

taken on 22 September 1958 (WL), and a photograph can be seen in 2002. *Nova Scotia Birds* 44 (3): 34.

Red-winged Blackbird / Carouge à epaulettes *Agelaius phoenicius* (NSM; P)

Breeds in small numbers in Westport. A regular migrant on the island, in spring from the first week of April through May (earliest 11 March, latest 2 June) and in fall from late August into December (earliest 11 August) usually with flocks of Grackles. A remarkable count of 1500 was made during 2-5 November 1974 (BMT). A few, or even small groups, often linger well into December or longer at Westport feeders (for example, 30 from 19 December 1989 to 18 February 1990, RBS), making the limits of the fall migration period hard to define. A specimen was taken on 3 September 1966 (WL).

Yellow-headed Blackbird / Carouge à tête jaune *Xanthocephalus xanthocephalus* (P)

Only nine records of this species, which appears regularly as a vagrant on the mainland: the first on 5 September 1975 (BMT), then in October 1980 (WL, date unrecorded). Thereafter, the records include 28 August and 11 September 1982, 1 September 1984, October 1991, (photographed, RBS), fall 1999 (no details: 1999. *Nova Scotia Birds* 42 (1): 29), 21-25 May 2014, and 2 September 2017 (PAC), either in the Pond Cove dunes or at Westport feeders.

Rusty Blackbird / Quiscale rouilleux *Euphagus carolinus* (ROM; P)

This declining species, as shown in breeding bird atlas records, is a scarce migrant, in spring mainly from mid April through May (earliest 1 April, latest 24 May), and in fall mainly in October and November (earliest 22 August, peak in mid October, latest 19 December), most commonly in blackbird flocks at Westport feeders. WL recorded "hundreds" on on 16 April 1970 and a flock of 40 was seen on 28 September 1972 (John Kearney; 1972. *Nova Scotia Birds* 14 (3): 164). Only about 25 of 39 records in our database have been since 1996, reflecting the decline of this species in eastern Canada during the past four decades. One specimen was taken on 27 October 1972 by Barry Kent MacKay.

Brewer's Blackbird / Quiscale de Brewer *Euphagus cyanocephalus*

This common western species, always rare in Nova Scotia, has been recorded on the island only twice: two at Northern Point on

24 September 1979 (BMT), and another during a spring fallout of birds on 12 May 1996 (BLM).

Common Grackle / Quiscale bronze *Quiscalus quiscula* (P)

Increasingly abundant as a breeder and as a fall migrant. The rather small breeding population (perhaps five pairs) is centered in Westport. A few may overwinter at feeders there. The main spring arrivals begin in mid April (earliest 10 March), and the major fall migratory movements are from mid October through November (peak in the last ten days of October and the first week of November). Numbers in fall migration may be considerable, for example, 100 in Westport on 19 November 1999, 350 in several flocks on 12-13 November 2000, several hundred in passage on and over the island from 9-12 November 2001, 100 near Western Light on 28 October 2004, 200 on 24 October 2005, 1000 on 28 October 2005 (David Pugh), 250 arriving on 19 October 2008, more than 4300 overhead near Northern Point on 23 October 2020 and 1700 the following day (Alix d'Entremont, Kathleen MacAulay). Low numbers may be present into mid December.

Brown-headed Cowbird / Vacher à tête brune *Molothrus ater* (P)

Present practically year-round as a rather uncommon breeder in summer and as a migrant in mid April into May (earliest 10 March, peak during the last two weeks of April) and from the last days of August through October. Occurrences increase from November into December, and one or two may overwinter among blackbird flocks at feeders in Westport. Reports on eBird seem to show a gradual decline of numbers overall since the late 1990s.

Orchard Oriole / Oriole des vergers *Icterus spurius* (NSM; P)

First recorded on 21 May 1961 (specimen taken from a group of three by WL). Since then, a regular spring overshoot (earliest 2 May, peak in the middle of the month, latest 29 May), and an early fall migrant (20-31 August, latest 22 September). Most of the spring records have been in Westport, where oriole feeders are now common (Fig 40). Five, including a male in song, were in Westport on 29 May 2005, and on 31 August 1971 thirty were recorded, including a flock of 20 at Northern Point.

Baltimore Oriole / Oriole de Baltimore *Icterus galbula* (AU; P)

A common spring and fall migrant. In spring, Westport often has numbers of glorious males in song (earliest 21 April, peak during

Fig 40 A female Orchard Oriole feeding on an orange slice at a Westport feeder, 23 May 2008. Photo: Eric Mills.

the last two weeks of May, latest 2 June), while in fall the greatest numbers are seen at Northern Point (earliest 13 August, peaking during early September, latest 30 November). On 12 May 1996, 130 were on the island, and there were still 100 on 19 May (BLM, RBS). Individuals on 27 July 2015 and 31 July 1974 were likely post-breeding wanderers. Two are believed to have overwintered in Westport during 2001-2002 (CAH). Specimens were taken in September 1972 (WL) and on 25 May 1974 (CC).

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BIRD SPECIES OF BRIER ISLAND, NOVA SCOTIA

DATE(s) _____

WEATHER_____

OBSERVER(s) _____

_____

_____

_____

R - Resident, occurring year round
M - Migrant, occurring in spring and/or fall
N - Confirmed breeder
(N) - Unconfirmed breeder
(F) - Former breeder: Used to breed on Brier Island but hasn't for many years
W - Winters
S - Summer
V - Visitor
E - Introduced species

c - common: Observed every year on Brier Island. Usually in good numbers
u - uncommon: Observed almost every year on Brier Island. Usually in low numbers
i - irruptive: Observed some years on Brier Island. May be in good numbers
r - rare: Observed some years on Brier Island. Usually in low numbers
x - extirpated: Used to be resident on Brier Island
e - exceptional (number of sightings)

Number of Species: 357 [including two in parentheses that we regard as hypothetical]

Format for records:
e.g. NMc = Confirmed breeder/Common migrant; We = Winters/exceptional

GEESE, SWANS, AND DUCKS

____ **Greater White-fronted Goose** *Anser albifrons* – Ve(1)
____ **Snow Goose** *Chen caerulescens* – Mr
____ **Brant** *Branta bernicla* – Wu, Mc
____ **Canada Goose** *Branta canadensis* – Nc, Mc
____ **Tundra Swan** *Cygnus columbianus* – Ve(2)
____ **Mute Swan** *Cygnus olor* – Ee(1)
____ **Wood Duck** *Aix sponsa* – Sr, Mr
____ **Mallard** *Anas platyrhynchos* – (N), Wu
____ **American Black Duck** *Anas rubripes* – Nc, R
____ **Gadwall** *Anas strepera* – (N), Mu
____ **Green-winged Teal** *Anas crecca* – Nu, Wr
____ **American Wigeon** *Mareca americana* – N, Mu
____ **Eurasian Wigeon** *Anas penelope* Ve(1)
____ **Northern Pintail** *Anas acuta* – Mu
____ **Northern Shoveler** *Spatula clypeata* – Mu
____ **Blue-winged Teal** *Spatula discors* – Nu, Mc
____ **Cinnamon Teal** *Anas cyanoptera* – Ve(1)
____ **Redhead** *Aythya americana* – Ve(4)
____ **Ring-necked Duck** *Aythya collaris* – Mu
____ **Tufted Duck** *Aythya fuligula* – Ve(1)
____ **Greater Scaup** *Aythya marila* – M
____ **Lesser Scaup** *Aythya affinis* – Mu
____ **Common Eider** *Somateria mollissima* – Nc, R
____ **King Eider** *Somateria spectabilis* – Sr, Mr
____ **Harlequin Duck** *Histrionicus histrionicus* – Mu
____ **Long-tailed Duck** *Clangula hyemalis* – Mc
____ **Surf Scoter** *Melanitta perspicillata* – Mc
____ **Black Scoter** *Melanitta americana* – Mc
____ **White-winged Scoter** *Melanitta fusca* – Mc
____ **Bufflehead** *Bucephala albeola* – Mc
____ **Common Goldeneye** *Bucephala clangula* – Mc
____ **Barrow's Goldeneye** *Bucephala islandica* – Vr
____ **Hooded Merganser** *Lophodytes cucullatus* – Mu
____ **Common Merganser** *Mergus merganser* – Mu
____ **Red-breasted Merganser** *Mergus serrator* – Mc, Wc
____ **Ruddy Duck** *Oxyura jamaicensis* – Vr

PARTRIDGE, PHEASANTS, AND GROUSE

____ **Gray Partridge** *Perdix perdix* – E(1)
____ **Ring-necked Pheasant** *Phasianus colchicus* – Nc, E
____ **Ruffed Grouse** *Bonasa umbellus* – Nc, R
____ **Spruce Grouse** *Falcipennis canadensis* – Ve(3)

GREBES

____ **Pied-billed Grebe** *Podilymbus podiceps* – Mr
____ **Horned Grebe** *Podiceps auritus* – Mc
____ **Red-necked Grebe** *Podiceps grisegena* – Mc, Wu

PIGEONS AND DOVES

____ **Rock Pigeon** *Columba livia* – Nc, R
____ **White-winged Dove** *Zenaida asiatica* – Ve(2)
____ **Mourning Dove** *Zenaida macroura* – Nc, R

CUCKOOS

____ **Yellow-billed Cuckoo** *Coccyzus americanus* – Mr
____ **Black-billed Cuckoo** *Coccyzus erythropthalmus* – Mr

GOATSUCKERS

____ **Common Nighthawk** *Chordeiles minor* – Mu
____ **Eastern Whip-poor-will** *Caprimulgus vociferus* – Ve(2)

SWIFTS

____ **Chimney Swift** *Chaetura pelagica* – Mu

HUMMINGBIRDS

____ **Ruby-throated Hummingbird** *Archilochus colubris* – (N), Mc

LIMPKIN

____ **Limpkin** *Aramus guarauna* – Ve(1)

RAILS, GALLINULES, AND COOTS

____ **Sora** *Porzana carolina* – Mr
____ **Clapper Rail** *Rallus crepitans* – Ve(2)
____ **Virginia Rail** *Rallus limicola* – Mr
____ **Purple Gallinule** *Porphyria martinica* – Ve (2)
____ **Common Gallinule** *Gallinula galeata* – Mr
____ **American Coot** *Fulica americana* – Mr

CRANES

____ **Sandhill Crane** *Antigone canadensis* – Ve(6)

STILTS AND AVOCETS

____ **American Avocet** *Recurvirostra americana* – Ve(1)

LAPWINGS AND PLOVERS

____ **Black-bellied Plover** *Pluvialis squatarola* – Mc
____ **American Golden-Plover** *Pluvialis dominica* – Mu
____ **Pacific Golden-Plover** *Pluvialis fulva* – Ve (1)*
____ **Killdeer** *Charadrius vociferus* – Nu, Mu
____ **Wilson's Plover** *Charadrius wilsonia* – Ve(1)
____ **Semipalmated Plover** *Charadrius semipalmatus* – Mc
____ **Piping Plover** *Charadrius melodus* – Mu

SANDPIPERS

____ **Upland Sandpiper** *Bartramia longicauda* – Mr
____ **Whimbrel** *Numenius phaeopus* – Mc
____ **Long-billed Curlew** *Numenius americanus* – Ve(1)*
____ **Hudsonian Godwit** *Limosa haemastica* – Mu
____ **Ruddy Turnstone** *Arenaria interpres* – Mc
____ **Purple Sandpiper** *Calidris maritima* – Wc____
____ **Red Knot** *Calidris canutus* – Mu
____ **Sanderling** *Calidris alba* – Mc
____ **Semipalmated Sandpiper** *Calidris pusilla* – Mc
____ **Western Sandpiper** *Calidris mauri* – Mr
____ **Least Sandpiper** *Calidris minutilla* – Mc
____ **Little Stint** *Calidris minuta* – Ve(1)
____ **White-rumped Sandpiper** *Calidris fuscicollis* – Mc
____ **Baird's Sandpiper** *Calidris bairdii* – Mu
____ **Dunlin** *Calidris alpina* – Mc
____ **Curlew Sandpiper** *Calidris ferruginea* – Ve(1)*
____ **Stilt Sandpiper** *Calidris himantopus* – Mu
____ **Pectoral Sandpiper** *Calidris melanotos* – Mu
____ **Buff-breasted Sandpiper** *Calidris subruficollis* – Mu
____ **Ruff** *Philomachus pugnax* – Ve(2)
____ **Short-billed Dowitcher** *Limnodromus griseus* – Mc
____ **Long-billed Dowitcher** *Limnodromus scolopaceus* – Ve(5)
____ **Wilson's Snipe** *Gallinago delicata* – Mc
____ **American Woodcock** *Scolopax minor* – Nc, Mc
____ **Spotted Sandpiper** *Actitis macularia* – Nu, Mc
____ **Solitary Sandpiper** *Tringa solitaria* – Mc
____ **Willet** *Catoptrophorus semipalmatus* – Mc
____ **Greater Yellowlegs** *Tringa melanoleuca* – Mc
____ **Lesser Yellowlegs** *Tringa flavipes* – Mc

PHALAROPES

____ **Wilson's Phalarope** *Phalaropus tricolor* – Mr
____ **Red-necked Phalarope** *Phalaropus lobatus* – Mc
____ **Red Phalarope** *Phalaropus fulicaria* – Mc

SKUAS AND JAEGERS

____ **Great Skua** *Catharacta skua* – Vr
____ **South Polar Skua** *Catharacta maccormicki* – Mu
____ **Pomarine Jaeger** *Stercorarius pomarinus* – Mc
____ **Parasitic Jaeger** *Stercorarius parasiticus* – Mc
____ **Long-tailed Jaeger** *Stercorarius longicaudus* – Ve(5)

AUKS, MURRES, AND PUFFINS

____ **Dovekie** *Alle alle* – Wc
____ **Common Murre** *Uria aalge* – Wu
____ **Thick-billed Murre** *Uria lomvia* – Wc

AUKS, MURRES, AND PUFFINS *cont'd*

____ **Razorbill** *Alca torda* – Wc
____ **Black Guillemot** *Cepphus grylle* – Nc, Mc, Wc
____ **Atlantic Puffin** *Fratercula arctica* – Mc

GULLS, TERNS AND SKIMMERS

____ **Black-legged Kittiwake** *Rissa tridactyla* – Mc, Wc
____ **Sabine's Gull** *Xema sabini* – Ve(6)
____ **Bonaparte's Gull** *Chroicocephalus philadelphia* – Mu
____ **Black-headed Gull** *Chroicocephalus ridibundus* – Vr
____ **Franklin's Gull** *Leucophaeus pipixcan* – Ve(2)
____ **Laughing Gull** *Leucophaeus atricilla* – Mu
____ **Common Gull** *Larus canus* – Ve(3)
____ **Ring-billed Gull** *Larus delawarensis* – Mu
____ **Herring Gull** *Larus argentatus* – Nc, R
____ **Iceland Gull** *Larus glaucoides* – Wc
____ **Glaucous Gull** *Larus hyperboreus* – Wu
____ **Lesser Black-backed Gull** *Larus fuscus* – Mr
____ **Great Black-backed Gull** *Larus marinus* – Nc, R
____ **Least Tern** *Sterna antillarum* – Ve (3)
____ **Black Tern** *Chlidonias niger* – Mr
____ **Common Tern** *Sterna hirundo* – (F), S
____ **Arctic Tern** *Sterna paradisaea* – (F), S
____ **Forster's Tern** *Sterna forsteri* – Ve(1)
____ **Roseate Tern** *Sterna dougallii* – (F), S
____ **Sandwich Tern** *Sterna sandvicensis* – Ve(1)
____ **Royal Tern** *Sterna maxima* – Ve(4)
____ **Caspian Tern** *Sterna caspia* – Mu
____ **Black Skimmer** *Rynchops niger* – Ve(6)

TROPICBIRDS

____ **White-tailed Tropicbird** *Phaethon lepturus* – Ve(5)

LOONS

____ **Red-throated Loon** *Gavia stellata* – Wu, Mc
____ **Pacific Loon** *Gavia pacifica* – Ve(2)
____ **Common Loon** *Gavia immer* – Wc, Mc

SHEARWATERS AND PETRELS

____ **Northern Fulmar** *Fulmarus glacialis* – Mu, Wc
[____**Bulwer's Petrel** *Bulweria bulwerii* – Ve(1)]
____ **Cory's Shearwater** *Calonectris diomedea* – Mu
____ **Great Shearwater** *Ardenna gravis* – Mc
____ **Sooty Shearwater** *Ardenna grisea* – Mc
____ **Manx Shearwater** *Puffinus puffinus* – Mu
[____ **Balearic Shearwater** *Puffinus maurentanicus* – Ve(1)]
____ **Audubon's Shearwater** *Puffinus lherminieri* – Ve(2)*

STORM-PETRELS

____ **Wilson's Storm-Petrel** *Oceanites oceanicus* – Mc
____ **Leach's Storm-Petrel** *Oceanodroma leucorhoa* – Sc, Mc

FRIGATEBIRDS

____ **Magnificent Frigatebird** *Fregata magnificens* – Ve(1)

GANNETS AND BOOBIES

____ **Northern Gannet** *Morus bassanus* – Su, Mc, Wu
____ **Brown Booby** – Ve(1)

CORMORANTS

____ **Great Cormorant** *Phalacrocorax carbo* – Nr, Wc
____ **Double-crested Cormorant** *Phalacrocorax auritus* – Nc, Wr

PELICANS

____ **Brown Pelican** *Pelecanus occidentalis* – Ve(1)

BITTERNS AND HERONS

____ **American Bittern** *Botaurus lentiginosus* – Mr, We(1)
____ **Least Bittern** *Ixobrychus exilis* – Ve(3)
____ **Great Blue Heron** *Ardea herodias* – Mc
____ **Cattle Egret** *Bubulcus ibis* – Vr
____ **Snowy Egret** *Egretta thula* – Vu
____ **Great Egret** *Ardea alba* – Vr
____ **Tricolored Heron** *Egretta tricolor* – Ve(4)
____ **Little Blue Heron** *Egretta caerulea* – Vu
____ **Green Heron** *Butorides virescens* – Sr, Mu
____ **Black-crowned Night-Heron** *Nycticorax nycticorax* -Mu
____ **Yellow-crowned Night-Heron** *Nyctanassa violacea* – Mu

IBISES

____ **Glossy Ibis** *Plegadis falcinellus* – Vr
____ **White Ibis** *Eudocimus albus* – Ve(2)

NEW WORLD VULTURES

____ **Turkey Vulture** *Cathartes aura* – Rc
____ **Black Vulture** *Coragyps atratus* – Ve(2)

OSPREY

____ **Osprey** *Pandion haliaetus* – Mu

KITES, HAWKS AND EAGLES

____ **Mississippi Kite** *Ictinia mississippiensis* – Ve(5)
____ **Golden Eagle** *Aquila chrysaetos* – Mr
____ **Bald Eagle** *Haliaeetus leucocephalus* – N, Mc
____ **Northern Harrier** *Circus cyaneus* – N, Mc
____ **Sharp-shinned Hawk** *Accipiter striatus* – Mc
____ **Cooper's Hawk** *Accipiter cooperii* – Mr
____ **Northern Goshawk** *Accipiter gentilis* – (N)r, Mu
____ **Zone-tailed Hawk** *Buteo albonotatus* – (Ve)1)
____ **Broad-winged Hawk** *Buteo platypterus* – Mc
____ **Red-shouldered Hawk** *Buteo lineatus* – Mu
____ **Swainson's Hawk** *Buteo swainsoni* – Ve(4)
____ **Rough-legged Hawk** *Buteo lagopus* – Mu, Wu
____ **Red-tailed Hawk** *Buteo jamaicensis* – Mc

OWLS

____ **Long-eared Owl** *Asio otus* – (N), Mu
____ **Short-eared Owl** *Asio flammeus* – Mu
____ **Great Horned Owl** *Bubo virginianus* – N, R
____ **Barred Owl** *Strix varia* – Mr
____ **Snowy Owl** *Bubo scandiaca* – Wu
____ **Northern Hawk Owl** *Surnia ulula* – Ve(3)
____ **Northern Saw-whet Owl** *Aegolius acadicus* – N, Mu
____ **Boreal Owl** *Aegolius funereus* – Ve(3)

KINGFISHERS

____ **Belted Kingfisher** *Megaceryle alcyon* – (N), Mc

WOODPECKERS

____ **Red-headed Woodpecker** *Melanerpes erythrocephalus* – Mr
____ **Red-bellied Woodpecker** *Melanerpes carolinus* – Vu
____ **Yellow-bellied Sapsucker** *Sphyrapicus varius* – Mu
____ **Hairy Woodpecker** *Picoides villosus* – Mu
____ **Downy Woodpecker** *Picoides pubescens* – Mu
____ **Black-backed Woodpecker** *Picoides arcticus* – Mr
____ **American Three-toed Woodpecker** *Picoides dorsalis* – Ve (1)*
____ **Northern Flicker** *Colaptes auratus* – Mc
____ **Pileated Woodpecker** *Dryocopus pileatus* – Vu(6)

FALCONS

____ **American Kestrel** *Falco sparverius* – Mc
____ **Merlin** *Falco columbarius* – N, Mc
____ **Peregrine Falcon** *Falco peregrinus* – Mc
____ **Gyrfalcon** *Falco rusticolus* – We(7)

TYRANT FLYCATCHERS

____ **Olive-sided Flycatcher** *Contopus cooperi* – Mu
____ **Eastern Wood-Pewee** *Contopus virens* – Mc
____ **Acadian Flycatcher** *Empidonax virescens* – Ve(6)
____ **Yellow-bellied Flycatcher** *Empidonax flaviventris* – (N), Mc
____ **Alder Flycatcher** *Empidonax alnorum* – Nc, Mc
____ **Willow Flycatcher** *Empidonax traillii* – Vu(7)
____ **Least Flycatcher** *Empidonax minimus* – Mc
____ **Eastern Phoebe** *Sayornis phoebe* – N, Mc
____ **Say's Phoebe** *Sayornis saya* – Ve(4)
____ **Great Crested Flycatcher** *Myiarchus crinitus* – Mu
____ **Western Kingbird** *Tyrannus verticalis* – Mu
____ **Eastern Kingbird** *Tyrannus tyrannus* – Mc
____ **Scissor-tailed Flycatcher** *Tyrannus forficatus* -Ve(2)

SHRIKES

____ **Loggerhead Shrike** *Lanius ludovicianus* – Vr
____ **Northern Shrike** *Lanius borealis* – Wu

VIREOS

____ **White-eyed Vireo** *Vireo griseus* – Mr
____ **Blue-headed Vireo** *Vireo solitarius* – Mc
____ **Yellow-throated Vireo** *Vireo flavifrons* – Mr
____ **Red-eyed Vireo** *Vireo olivaceus* – Mc
____ **Philadelphia Vireo** *Vireo philadelphicus* – Mu
____ **Warbling Vireo** *Vireo gilvus* – Mr

CORVIDS

____ **Canada Jay** *Perisoreus canadensis* – Ne, Vr
____ **Blue Jay** *Cyanocitta cristata* – N , R, Mc
____ **Black-billed Magpie** *Pica hudsonia* – Ve(1)
____ **Eurasian Jackdaw** *Corvus monedula* – Ve(1)
____ **American Crow** *Corvus brachyrhynchos* – R, Nc
____ **Common Raven** *Corvus corax* – R, Nc

LARKS

____ **Horned Lark** *Eremophila alpestris* – Wu, Mc

SWALLOWS

____ **Purple Martin** *Progne subis* – Mr
____ **Tree Swallow** *Tachycineta bicolor* – Nc, Mc
____ **Barn Swallow** *Hirundo rustica* – Nu, Mc
____ **Northern Rough-winged Swallow** *Stelgidopteryx serripennis* – N, Mr
____ **Bank Swallow** *Riparia riparia* – (F), Mc
____ **Cliff Swallow** *Petrochelidon pyrrhonota* – (F), Mu

TITMICE

____ **Black-capped Chickadee** *Poecile atricapillus* – Nc, Mc
____ **Boreal Chickadee** *Poecile hudsonicus* – Nu, Mc

NUTHATCHES

____ **Red-breasted Nuthatch** *Sitta canadensis* – (N), Mc
____ **White-breasted Nuthatch** *Sitta carolinensis* – Mr

CREEPERS

____ **Brown Creeper** *Certhia americana* – Mc

WRENS

____ **House Wren** *Troglodytes aedon* – Mu
____ **Winter Wren** *Troglodytes hiemalis* – Nu, Mc
____ **Carolina Wren** *Thryothorus ludovicianus* – Ve(2)
____ **Marsh Wren** *Cistothorus palustris* – Vr
____ **Sedge Wren** *Cistothorus platensis* – Ve(4)

GNATCATCHERS

____ **Blue-gray Gnatcatcher** *Polioptila caerulea* – Mu

KINGLETS

____ **Golden-crowned Kinglet** *Regulus satrapa* – Nc, Mc
____ **Ruby-crowned Kinglet** *Corthylio calendula* – Mc

OLD WORLD FLYCATCHERS AND CHATS

____ **Northern Wheatear** *Oenanthe oenanthe* – Ve(4)

THRUSHES

____ **Eastern Bluebird** *Sialia sialis* – Nu, Mu
____ **Townsend's Solitaire** *Myadestes townsendi* – Ve(1)
____ **Gray-cheeked Thrush** *Catharus minimus* – Mr
____ **Bicknell's Thrush** *Catharus bicknelliI* – Ve(2)
____ **Veery** *Catharus fuscescens* – Mc
____ **Swainson's Thrush** *Catharus ustulatus* – Nc, Mc
____ **Hermit Thrush** *Catharus guttatus* – Nu, Mc
____ **Wood Thrush** *Hylocichla mustelina* – Mr
____ **American Robin** *Turdus migratorius* – Nc, Mc

MIMICS

____ **Gray Catbird** *Dumetella carolinensis* – Nc, Mc
____ **Northern Mockingbird** *Mimus polyglottos* – Mu
____ **Brown Thrasher** *Toxostoma rufum* – We, Mu

STARLINGS

____ **European Starling** *Sturnus vulgaris* – Nc, R

WAXWINGS

____ **Bohemian Waxwing** *Bombycilla garrulus* – Mu
____ **Cedar Waxwing** *Bombycilla cedrorum* – Nc, Mc

OLD WORLD SPARROWS

____ **House Sparrow** *Passer domesticus* – (F), Mu

PIPITS

____ **American Pipit** *Anthus rubescens* – Mc, Wu

FRINGILLINE AND CARDUELINE FINCHES

____ **Pine Grosbeak** *Pinicola enucleator* – Wi, Mu
____ **Purple Finch** *Haemorhous purpureus* – Nu, Mc
____ **House Finch** *Haemorhous mexicanus* – Vu
____ **Red Crossbill** *Loxia curvirostra* – Mu
____ **White-winged Crossbill** *Loxia leucoptera* – Mu
____ **Pine Siskin** *Spinus pinus* – Mc
____ **American Goldfinch** *Spinus tristis* – Nc, Mc
____ **Common Redpoll** *Acanthis flammea* – Mu, Wi
____ **Hoary Redpoll** *Acanthis hornemanni* – Ve(6)
____ **Evening Grosbeak** *Coccothraustes vespertinus* – Mr

LONGSPURS AND SNOW BUNTINGS

____ **Lapland Longspur** *Calcarius lapponicus* – Mu
____ **Snow Bunting** *Plectrophenax nivalis* – Wc, Mc

WOOD-WARBLERS

____ **Ovenbird** *Seiurus aurocapilla* – Mc
____ **Worm-eating Warbler** *Helmitheros vermivorum* – Ve(3)
____ **Louisiana Waterthrush** *Parkesia motacilla* – Ve(3)
____ **Northern Waterthrush** *Parkesia noveboracensis* – Mc
____ **Golden-winged Warbler** *Vermivora chrysoptera* – Ve(5)
____ **Blue-winged Warbler** *Vermivora cyanoptera* – Mr
____ **Prothonotary Warbler** *Protonotaria citrea* – Ve(6)
____ **Black-and-white Warbler** *Mniotilta varia* – Nu, Mc
____ **Tennessee Warbler** *Leiothlypis peregrina* – Mu
____ **Orange-crowned Warbler** *Leiothlypis celata* – Mu
____ **Nashville Warbler** *Leiothlypis ruficapilla* – N, Mc
____ **Connecticut Warbler** *Oporornis agilis* – Ve(7)
____ **Mourning Warbler** *Geothlypis philadelphia* – Mu
____ **Common Yellowthroat** *Geothlypis trichas* – Nc, Mc
____ **Kentucky Warbler** *Geothlypis formosa* – Ve(4)
____ **Hooded Warbler** *Setophaga citrina* – Vr

WOOD-WARBLERS *cont'd*

____ **American Redstart** *Setophaga ruticilla* – Nc, Mc
____ **Cerulean Warbler** *Setophaga cerulea* – Ve(6)
____ **Blackburnian Warbler** *Setophaga fusca* – Mc
____ **Northern Parula** *Setophaga americana* – Nu, Mc
____ **Yellow Warbler** *Setophaga petechia* – Nc, Mc
____ **Chestnut-sided Warbler** *Setophaga pensylvanica* – (N), Mc
____ **Magnolia Warbler** *Setophaga magnolia* – Nc, Mc
____ **Cape May Warbler** *Setophaga tigrina* – Mu
____ **Black-throated Blue Warbler** *Setophaga caerulescens* – Mc
____ **Yellow-rumped Warbler** *Setophaga coronata* – Nc, Mc
____ **Black-throated Gray Warbler** *Setophaga nigrescens* – Ve(1)*
____ **Black-throated Green Warbler** *Setophaga virens* – Nc, Mc
____ **Bay-breasted Warbler** *Setophaga castanea* – Mc
____ **Blackpoll Warbler** *Setophaga striata* – Nu, Mc
____ **Pine Warbler** *Setophaga pinus* – Mr
____ **Yellow-throated Warbler** *Setophaga dominica* – Vr
____ **Prairie Warbler** *Setophaga discolor* – Mu
____ **Palm Warbler** *Setophaga palmarum* – Mc
____ **Wilson's Warbler** *Cardellina pusilla* – Mc
____ **Canada Warbler** *Cardellina canadensis* – Mu

CHATS

____ **Yellow-breasted Chat** *Icteria virens* – Mu

EMBERIZIDS

____ **Eastern Towhee** *Pipilo erythrophthalmus* – We, Mr
____ **American Tree Sparrow** *Spizelloides arborea* – Mc, Wu
____ **Field Sparrow** *Spizella pusilla* – Mr
____ **Chipping Sparrow** *Spizella passerina* – Nu, Mc
____ **Clay-colored Sparrow** *Spizella pallida* – Vr
____ **Vesper Sparrow** *Pooecetes gramineus* – Mu
____ **Lark Bunting** *Calamospiza melanocorys* – Ve(4)
____ **Lark Sparrow** *Chondestes grammacus* – Mr
____ **Bell's Sparrow** *Artemisiospiza belli* – Ve(1)
____ **Savannah Sparrow** *Passerculus sandwichensis* – Nc, Mc
____ **Grasshopper Sparrow** *Ammodramus savannarum* – Ve(8)
____ **Nelson's Sparrow** *Ammospiza nelsoni* – Mu
____ **Seaside Sparrow** *Ammodramus maritimus* – Ve(2)
____ **Lincoln's Sparrow** *Melospiza lincolnii* – Mc
____ **Song Sparrow** *Melospiza melodia* – Nc, R, Mc
____ **Swamp Sparrow** *Melospiza georgiana* – Nu, Mc
____ **Fox Sparrow** *Passerella iliaca* – Mu
____ **White-throated Sparrow** *Zonotrichia albicollis* – Nc, Mc
____ **White-crowned Sparrow** *Zonotrichia leucophrys* – Mc
____ **Dark-eyed Junco** *Junco hyemalis* – Nc, Mc

CARDINALS AND ALLIES

____ **Summer Tanager** *Piranga rubra* – Mr
____ **Scarlet Tanager** *Piranga olivacea* – Mu
____ **Western Tanager** *Piranga ludoviciana* – Ve(2)
____ **Northern Cardinal** *Cardinalis cardinalis* – Nu, Wu, Mu
____ **Dickcissel** *Spiza americana* – Mu
____ **Rose-breasted Grosbeak** *Pheucticus ludovicianus* – Mc
____ **Blue Grosbeak** *Guiraca caerulea* – Mr
____ **Indigo Bunting** *Passerina cyanea* – (F), Mu

BLACKBIRDS AND ALLIES

____ **Eastern Meadowlark** *Sturnella magna* – Mu
____ **Bobolink** *Dolichonyx oryzivorus* – (F), Mc
____ **Red-winged Blackbird** *Agelaius phoeniceus* – N, Mc
____ **Yellow-headed Blackbird** *Xanthocephalus xanthocephalus* – Vr
____ **Rusty Blackbird** *Euphagus carolinus* – Mu
____ **Brewer's Blackbird** *Euphagus cyanocephalus* – Ve(2)
____ **Common Grackle** *Quiscalus quiscula* – Nu, Mc
____ **Brown-headed Cowbird** *Molothrus ater* – Nu, Mu
____ **Orchard Oriole** *Icterus spurius* – Mu
____ **Baltimore Oriole** *Icterus galbula* – Mc

Compiled by Lance Laviolette and Eric L. Mills

NOTES

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